

Annual report 2000

(summary edition)

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THE STATE OF THE SERVICES: BACKGROUND

Introduction

The transformation of the energy markets proceeds – somewhat unevenly – in both the Italian and European contexts. Legislative Decree 79 of 16 March 1999 (hereafter Legislative Decree 79/1999), which implemented European Directive 96/92/EC of the European Parliament and Council of Ministers (hereafter Directive 96/02/EC), produced far-reaching changes in the regulatory framework of the national electricity sector and introduced a degree of liberalisation to the market.

Significant results were achieved in the electricity sector, particularly on the demand side. There was a marked increase in the number and importance of eligible customers, as the threshold for access to the free market was lowered. Delays in implementation still persist, however: they slow down the liberalisation process, create uncertainty for existing operators and do nothing to encourage the entry of new ones. The organisational aspects of the electricity exchange and the principal institutional bodies operating in it (the Single Buyer and the Market Operator) have still to be defined.

In the natural gas sector the implementation of the EU Directive in May 2000 places Italy in the forefront in Europe in terms of the extent and speed with which the market is being opened up. Considerable effort and careful vigilance by both the Regulatory and Antitrust Authorities will, however, be needed.

In both sectors the opening up process appears somewhat less courageous on the supply side, which still exhibits a high degree of concentration, in spite of the entry of new operators. Various aspects of the general operating context give cause for concern. A high fiscal wedge, higher than in many other European countries and not fully justified in distributive terms, is holding back the competitiveness of the energy system. It is also adding to the final prices borne by customers.

In the European context, the pace of energy liberalisation in the different member states is uneven. The creation of a single market is being hindered, partly because of the difficulty of ensuring effective conditions of reciprocity and inter-operability among the various national networks. Some countries are late with the implementation of the EU Directives, while uncertainties persist over the timescale for the ratification of the international agreements to reduce polluting emissions and the cost and funding arrangements for these agreements.

The Government has approved the plan presented by Enel S.p.A. for the sale of plants amounting to an overall installed capacity of about 15,000 MW, as a result of which Enel has set up three limited liability companies to which the plants have been allocated. The Government has also set out the conditions for the sale of equity stakes and has informed Enel of the need to speed up the sale.

For the purpose of regulating electricity imports on the national market current interconnection capacity with neighbouring countries have been estimated. The Authority for Electricity and Gas (hereafter AEEG) has defined the terms and conditions for power imports, as well as the procedures that the Gestore della Rete di Trasmissione Nazionale (the National Transmission System Operator, hereafter GRTN) should follow to evaluate import applications for the year 2000 and allocate the interconnection capacity available for the free market.

The development of electricity production from renewable sources has been boosted by a “green certificate” mechanism based on market rules that are better suited to a liberalised context. The method to calculate general system costs, and stranded costs in particular, has been defined.

With regard to the regulation of transmission, the perimeter of the national transmission network has been defined; the new company that will operate the national transmission network has been set up and its mandate set forth; the arrangements and criteria for funding the new company have been laid down and the first operational guidelines issued. Consultation procedures have been opened on the proposed draft standard wheeling contract and the regulations governing electricity network operators.

Once the procedures for the recognition of eligible client status had been defined, the number of eligible customers increased to the extent that they now account for a significant percentage of all national consumption. Other initiatives by the AEEG concerned further obligations of Enel and distributors.

The implementation of Directive 98/30/CE of the European Parliament and Council of 22 June 1998 (hereafter Directive 98/30/EC) on common rules for the natural gas internal market moved up the institutional and political agenda. Acting on the powers delegated to it by Parliament, the Government approved the legislative decree implementing the Directive; this was put out to consultation by the numerous interested parties. The process of implementing the two European Directives on the liberalisation of the electricity and natural gas markets also continued in the other EU member states.

The strong price rises on the international oil markets in 1999 were reflected in the prices of derivative products. These rises, the effects of which were intensified as the Euro lost value against the dollar, impacted strongly on electricity and gas tariffs. The indexation measures introduced previously by the AEEG helped to limit this impact and dilute it over time. To offset the strong international price rises and their repercussions on the inflation rate, the Government took corrective action on the tax rates on some mineral oils and methane, with effect from the last few months of 1999. The review of the taxation of electricity consumption proceeded with the entry into force of numerous measures contained in the 1999 Financial Law. These also involved the system for distributing tax revenue between the state and the local authorities.

The implementation of Legislative Decree 79 of 16 March 1999

The main changes introduced by Legislative Decree 79/1999 with effect from 1 April 1999 can be summed up as follows:

- two parallel markets co-exist within the national electricity system: the captive market and the free market. The captive market consists of all domestic customers and other users with consumption lower than certain pre-determined thresholds. These customers cannot stipulate supply contracts directly with national and foreign producers. The free market covers eligible customers, whose consumption exceeds certain thresholds and who have the option of stipulating contracts directly with producers, distributors or wholesalers to cover their own consumption. These contracts are not subject to tariffs;
- transmission and despatching continue to be the sole reserve of the state. They are carried out under a licensing arrangement by GRTN, to which network operation, but not ownership, rights have been transferred;

- a thirty-year licence has been introduced for the sale and distribution of electricity to captive customers; licences are issued by the Ministry for Industry;
- GRTN is to set up two new public operators, the Single Buyer, which will guarantee supply, contract management and the availability of energy for the captive market, and the Market Operator, which will cover the regulation and economic management of the electricity market;
- a new system of incentives for the use of renewable energies. This includes a green certificate mechanism and a review of the system of hydroelectric licences;
- from 1 January 2003 no operator can produce or import, directly or indirectly, more than 50% of the total electricity produced and imported into the national market;
- within the same timescale, with the possibility of an extension of no more than one year, Enel is to sell not less than 15,000 MW of its production capacity.

In March 2000 the Government expressed its intention to speed up the liberalisation of the electricity market, on both the supply side, by bringing forward the sale of part of Enel's generating plants, and the demand side, by lowering the eligibility thresholds originally envisaged in the decree.

Principal interventions and new institutional operators

The implementation of Legislative Decree 79/1999 necessitated close coordination and collaboration by the relevant institutions. In addition to the numerous tasks assigned to the AEEG, the Ministries of Industry, the Environment, and the Treasury, together with Enel and the Government, played a primary role in the implementation process. The main initiatives involved both the supply and the demand sides. On the former, they included the definition of the plan and conditions for the sale of plant by Enel; regulatory measures covering imports, new mechanisms for the promotion of electricity production from renewable sources, and system costs; and the definition of the obligations falling to operators. On the latter, they included the definition of eligible customers and contractual clauses for the free market, and the new transmission framework, with the creation of GRTN and the definition of the technical and economic conditions for network access. In April 2000 the timeframe for the organisation of the new electricity market is still largely undefined, in the absence of the necessary information regarding the future framework of the electricity exchange and the Single Buyer.

Production

In order to guarantee that from 2003 onwards no operator can produce and import more than 50% of total electricity entering the network in Italy, Legislative Decree 79/1999 established that by that date Enel had to sell at least 15,000 MW of its production capacity on the basis of a sell-off plan submitted for Government approval in July. The plan had to include objectives regarding guarantees of suitable market conditions, the availability of industrial plans, the continuation of operations on existing sites and the effects on employment.

In June 1999 the Ministry of Industry delivered a formal note to Enel in which the guidelines for the sale of generating plants owned by the company were set out. In July 1999 Enel's Board submitted a sell-off plan to the Government.

The plan identified the plants to be sold (14 thermoelectric and 7 hydroelectric) and grouped them into three companies (of 7,000 MW, 5,400 MW and 2,600 MW respectively). The principal criteria in selecting the plants to be sold were their technological mix and geographical distribution, and the effects of the operation on employment. The Government approved the plan on 4 August, thus enabling Enel to create three limited liability companies called Eurogen S.p.A., Elettrogen S.p.A. and Interpower S.p.A.

The conditions for the sale were set out in a decree of 25 January 2000 by the Ministry for the Treasury, Budget and Economic Planning (hereafter Treasury Ministry) and the Ministry of Industry. To encourage the creation of a stable shareholder base for each of the three companies the shares are to be sold by direct negotiation. Only in the case of the biggest company (Eurogen) is a public offer for sale also envisaged. The sale operations will be carried out by Enel under the supervision of *ad hoc* technical offices set up by the Treasury Ministry and the Ministry of Industry.

As part of the Government's measures to contain inflation the Treasury Ministry brought forward the deadline for completing the sale to the first six months of 2001.

Imports

Art. 10 of Legislative Decree 79/1999 entrusted GRTN with the task of identifying interconnection capacity with neighbouring countries, distinguishing between stipulated and available capacity over the ten-year period, and taking safety margins into account. The decree also tasked the AEEG with establishing the terms and conditions for imports in cases where available transportation capacity is insufficient, taking both reciprocity and a fair distribution between the captive and free markets into account. On the basis of the information supplied by GRTN and an inquiry by the AEEG, the maximum overall capacity of the interconnection lines with abroad, 80% of which are concentrated on the French and Swiss borders, was 5,400/5,500 MW (winter/summer period, August excluded), of which about half became available with effect from 1 January 2000 as a result of contracts expiring.

In the last few months of 1999 the AEEG issued a series of Decisions to:

- set out the conditions for refusing imports from EU member states on grounds of reciprocity, on the basis of a comparison between the eligibility thresholds in the exporting member state and those in force in Italy. The conditions governing the environmental and economic compatibility of imports from non-EU member states have still to be defined;
- establish a parameter for sharing out the interconnection capacity between the captive and free markets. This criterion reflects the shares of the free and captive markets and total national consumption;
- define the conditions for assessing and granting applications for interconnection capacity with abroad in the year 2000. Pending the introduction of a competitive bidding system, the AEEG has set limits for each operator of 15% at each border and 20% overall for the year, the aim being to prevent dominant positions emerging in access to interconnection capacity (which is low with respect to demand).

As a result of these measures, in the year 2000 nearly half of import capacity was opened to the free market. Taken overall this involves about 2000 GWh per year (7% of national consumption). 44 import

applications were granted, although limitations were applied to some contracts involving bigger operators.

Electricity from renewable sources

Art. 11 of Legislative Decree 79/1999 set out new market-based mechanisms to incentivise energy production from renewable sources. Starting from 1 January 2002, all operators producing or importing more than 100 GWh annually from conventional energy sources, net of cogeneration, self-consumption and exports, will be required the following year to supply the national electricity system with a quota of electricity produced from renewable sources. Initially this quota will be 2% of the energy produced in excess of 100 GWh. This obligation can be met fully or in part by purchasing electricity or related rights from other producers or from GRTN, which has been granted the rights associated with the energy produced from renewable sources subsidised pursuant to CIP (*Comitato Interministeriale Prezzi* - Interministerial Committee on Prices) provision 6/92.

On 11 November 1999 the decree containing the guidelines for electricity production from renewable sources was issued by the Ministry of Industry in agreement with the Ministry of the Environment (published in Official Gazette no. 292 of 14 December 1999). In particular, the decree provides for a reasonable return on investments in new plant through the creation of a free market in green certificates. These will be issued by GRTN, on application by producers, for a maximum of eight years. Producers will be able to sell the certificates at market price to operators to whom the obligation applies. The GRTN, which will be able to issue its own certificates, will take steps to stabilise the market by compensating for any price fluctuations.

The plants entitled to certification are those fed by strictly defined renewable sources (with the exclusion of assimilated sources) that started operating after April 1999 following new construction, up-grading, restructuring or reactivation. With regard to reciprocity mechanisms, the provision also regulates the possibility of meeting the requirement in part or in full through imported energy produced from renewable sources. It also sets out the penalties for operators who fail to meet the obligation. These include a warning by the AEEG and restrictions on participation in the energy market.

The transmission network and the Gestore della rete di trasmissione nazionale (GRTN S.p.A.)

On the basis of Legislative Decree 79/1999 transmission and despatch activities, including the unified operation of the national transmission network, are the reserve of the state and assigned under licence to a new operator, the GRTN. Subject to authorisation by the Ministry of Industry and approval by the AEEG, the GRTN can entrust to third parties the management of limited portions of the national transmission network not directly linked to it in functional terms.

The GRTN was set up as a limited liability company by Enel on 29 April 1999. After consultation with the AEEG (Decision 86/1999) and interested third parties, the Ministry of Industry issued Decree of 25 June 1999, which entered into force on 30 June 1999, defining the perimeter of the national transmission network. This includes all the very high-voltage lines (380/220kV) and about half the high voltage lines (150/132 kV). In August 1999 Enel completed the transfer to the new company of all assets and other rights related to the activity, with the exception of the ownership of its transmission network. In autumn 1999 the AEEG (Decision 157/1999) determined the provisional funding for GRTN, with effect from its separation from Enel.

In March 2000 (Decision 63/2000) the AEEG revised GRTN's funding for the year 2000. The separation of GRTN from Enel with effect from 1 April 2000 was determined by the ministerial decree of 21 January 2000, which also determines the transfer of functions to GRTN and allocates its shares free of charge to the Treasury Ministry.

In January 2000 the Ministry of Industry issued the GRTN with its first operating guidelines. These indicate the criteria for transmission and despatch to guarantee the reliability and safety of the national electricity system. A Code of Practice regulating transmission and despatch activities and relations with third parties is envisaged. The guidelines also include arrangements to guarantee the transparency and impartiality of the system during the transition period (until the Single Buyer and Market Operator are up and running) and responsibilities for the development of the network (economically and efficiently run service, especially in less efficient areas, the reduction of congestions, and the up-grading of the national and interconnection lines). No later than 31 May 2000 the GRTN is to adopt the technical rules governing the operation of production plants, distribution networks and related infrastructures. It is also required to stipulate agreements (based on a standard format proposed by the AEEG and approved by a Ministry of Industry decree) setting the fees for network owners. These agreements will also regulate the relationship between GRTN and owners with regard to maintenance and development.

The AEEG also published a consultation paper containing its proposals on the draft standard wheeling contract and the regulations for electricity network operators, designed to ensure that electricity wheeling applications for free customers are compatible with network safety requirements.

Single Buyer and Market Operator

In April 2000 the organisational framework of the Italian electricity market was still largely incomplete. The two new institutional figures envisaged by the Legislative Decree, the Single Buyer and the Market Operator, as well as the regulatory framework (electricity exchange) under the responsibility of the Ministry of Industry, are still being defined.

The Single Buyer was set up as a limited liability company by GRTN on 5 November 1999. Until it begins operating, Enel will cover supplies to distributors on the basis of the contracts and arrangements currently in force.

On the basis of a three-year demand forecast, carried out on a yearly basis, the Single Buyer will stipulate supply contracts for the captive market under transparent and non-discriminatory purchasing procedures. On the basis of AEEG guidelines it will also stipulate and manage contracts for sales to electricity distributors, in such a way as to guarantee a continuous, efficient service and equal tariff treatment for captive customers. Following consultation with the AEEG the Ministry of Industry will be able to authorise GRTN to sell stakes in the Single Buyer to the principal electricity distributors, while maintaining majority control. None of these operators can own stakes, directly or indirectly, of over 10%.

The GRTN is required to set up a company, called the Market Operator, which will organise the electricity market along transparent and competitive lines and ensure that a power reserve is always available. For this purpose, no more than one year from its creation, the new operator is required to define the market operator's role in balancing demand and supply and the obligations of producers and importers engaging in bilateral negotiation. This organisation will be approved by the Ministry of Industry following consultation with the AEEG

The electricity exchange, which is not obligatory, is scheduled to start operating by 1 January 2001. From this date the order in which plants begin operating and the selection of reserve plants and ancillary services will be laid down on the basis of economic merit, barring network impediments or constraints. From the date of the entry into force of Legislative Decree 79/1999 and up to 1 January 2001, a passthrough despatch mechanism will apply. Once the exchange is up and running the AEEG can, at the request of eligible customers, authorise bilateral supply contracts derogating from the exchange system.

General system costs

On the basis of the AEEG's proposals in Decisions 138/1999 and 192/1999, in the decree of 26 January 2000 the Ministry of Industry and the Treasury Ministry identified the costs which in the new liberalised framework must be quantified and sustained by all power operators on both the free and captive markets. General electricity system costs include:

- the refund to production and distribution companies of the non-recoverable element, resulting from EU Directive 96/92/EC liberalising electricity generation, of costs sustained for electricity generation (stranded costs);
- compensation for the greater value attributed as a result of Directive 96/96/EC to electricity produced by hydroelectric and geothermal plants which on 19 February 1997 were owned by or available to production-distribution companies and not eligible for subsidies pursuant to CIP provisions 12/89, 34/90 and 6/92 and subsequent amendments or additions.

Other general system costs set out in the decree include the costs of decommissioning nuclear power plants, the closure of the fuel cycle and other related activities; the costs of research and development to promote technological innovation in the general interest of the electricity system; and the costs of applying favourable tariff conditions for the electricity supplies envisaged by AEEG Decision 70/97.

With regard to stranded costs, the decree only includes as general costs:

- the refund, for seven years starting from 1 January 2000, of contractual and investment costs that as a result of the entry into force of EU Directive 96/92/EC are non-recoverable, as long as they were economically justifiable at the outset, or imposed on firms by legislative or national planning requirements. The costs of production-distribution companies' generation plants are not included as general system costs if subsidies were awarded for the electricity produced under the terms of CIP provisions 15/89, 340/90 and 6/92.
- the refund, for ten years starting from 1 January 2000, of the increased costs resulting from the forced relocation abroad of operations connected with the loading, unloading and regassification of Enel's natural gas imports from Nigeria on the basis of contractual commitments undertaken prior to 19 February 1997. As a result of the entry into force of EU Directive 96/92/EC these costs cannot be recovered.

The non-recoverable costs are quantified by the AEEG at the end of each year for each plant eligible for compensation. The decree sets a ceiling of 15,000 billion lire for these general costs. In the case of the transfer of the plants eligible for the refund on non-recoverable costs the transferee takes on the related costs and entitlements.

With regard to the second item the decree excludes plants with nominal power of less than 3 MW and pumping hydroelectric power plants.

Under the decree, the amount to be recovered is equivalent, for the year 2000, to the variable unit cost allowed for electricity produced by thermoelectric plants using commercial fossil fuels as specified in Art. 6 (6.5) of AEEG Decision 70/97. For the following months, for each plant and in each two-month period, it amounts to the difference between the average weighted values of the wholesale prices of electricity sold on the national market throughout the two-month period. The weighting used is calculated from the quantity of electricity produced by the plants in these periods, and the average fixed unit costs of the plant as set annually, by 31 December of the previous year, by the AEEG.

The nuclear costs are to be recalculated by the AEEG by 31 December 2000 and subsequently every three years on the basis of a detailed programme of the activity carried out by Sogin S.p.A., the Treasury-owned company created by Enel for the closure of the nuclear cycle pursuant to Legislative Decree 79/1999. For the current year, the costs are temporarily linked to current operating costs, and at any rate amount to no more than 0.6 lire per kWh consumed by final customers.

Research costs, covered by a special fund within the Cassa Conguaglio per il Settore Elettrico (Compensation Fund for the Electricity Sector), are set by the AEEG, by 31 August each year for the following year, and amount to no more than one lira per kWh consumed by final customers. For the current year a temporary ceiling of 0.5 lire per kWh consumed by final consumers has been applied.

The arrangements for the selection of research projects and the monitoring of the results will be defined by the Ministry of Industry and the AEEG no later than 30 June 2000. Until then the resources will be allocated by the CESI S.p.A. research company.

Free Market

With Decision 91/1999 the AEEG set out the procedures for the recognition, through self-certification, of eligible customer status for operators identified pursuant to Art. 14 of Decree 79/1999. The list of eligible customers is published on the AEEG's Internet site and up-dated periodically.

As of April 2000, 791 operators had been granted eligible status, with over 3,700 offtake points and an overall annual consumption of over 74,000 GWh. About 70% of these eligible operators were medium-large final customers and the number of consortia and companies with more than one offtake point showed a steady increase. To facilitate the launch of the free market, in May 1999 (Decision 78/1999) the AEEG set out some standard negotiating clauses for insertion in eligible customers' supply contracts, and in October 1999 (Decision 158/1999) added the option of unilateral withdrawal from annual supply contracts with just one month's notice.

Enel S.p.A. and distributors

Legislative Decree 79/1999 includes a series of corporate requirements for electricity operators (which mainly affect Enel and large distributors) and for the rationalisation of distribution at the municipal level.

In May 1999 Enel, having completed the necessary procedures to act as an industrial holding, set up five separate companies to operate in the electricity sector:

- Erga S.p.A. (Energie Rinnovabili Geotermiche ed Alternative) for the production of electricity from renewable sources [Enel Produzione S.p.A.(Production) was set up in the autumn of 1998]
- Enel Distribuzione S.p.A., for distribution to captive customers;
- Enel Trade S.p.A., for marketing and sales to eligible customers;
- Terna S.p.A. (Trasmissione Elettricit  Rete Nazionale), for the ownership rights of the national transmission network, including transportation lines and transformation stations;
- Sogin S.p.A. (Societa' Gestione Impianti Nucleari), for the decommissioning of nuclear power stations and the closure of the fuel cycle and related activities. The shares of this company were allocated free of charge to the Treasury Ministry.

In autumn 1999 Enel transferred to these companies all the assets and other rights connected with their activity, including related debts.

To meet the corporate obligations envisaged in the liberalisation decree, the other network asset owners (about 15 in all) set up one or more separate companies by July 1999. The owners of plants supplying more than 300,000 final customers are also obliged to create separate companies for distribution and sales to the captive market. In the absence of distribution groups at the municipal level, AEM Milano S.p.A. and Acea S.p.A. (the only two national distributors other than Enel to reach the threshold) created companies in the autumn of 1999. Provisions for the rationalisation of electricity distribution at the municipal level, which included proposals for merging several smaller distributors, affect a fairly high number of municipalities (about 200) and nearly all the distribution companies owned or partly owned by local authorities.

If no merger proposals had been submitted to or approved by the Ministry of Industry by 31 March 2000, local distribution companies which operate in municipalities where they supply at least 20% of total consumers could ask Enel to sell distribution branches to them. The deadline for the sale is 31 March 2001. If the parties fail to reach a negotiated agreement recourse to the arbitrator is envisaged from 30 September 2000.

The implementation of the Internal Gas Market Directive

With Law 144 of 17 May 1999 the Government was delegated by Parliament to issue one or more decrees within one year for the implementation of Directive 98/30/EC concerning common rules for the internal natural gas market, with definitive approval envisaged by 22 May 2000. In so doing Parliament set out the principles and guidelines to be followed by the Government in the reorganisation of the natural gas market. These include regulated access to the system under transparent, non-discriminatory conditions and the unbundling of vertically integrated companies, where this would have positive effects on the development of the market.

Summary of the principles and guiding criteria for the transposition of Directive 98/30/EC (pursuant to Art. 41 of Law 144/1999).

- Definition of the rules for the opening of the market with due guarantees for public service, safety, quality, interconnection and system interoperability in full respect of the powers of the AEEG.

- Declaration of public utility and urgency of infrastructural works for the development of the gas system.
- Elimination of normative disparities between the different operators.
- Introduction of measures to safeguard security of supply, promote the creation of new infrastructures for production, importation and storage, and encourage competition and the rational use of the existing infrastructures.
- Unbundling, where this would have positive effects on the development of the market, of vertically integrated companies, and accounting unbundling for the activities of importation, transportation, distribution and storage.
- Regulated access to the gas system under transparent, non-discriminatory conditions.
- Guarantees that with regard to eligibility thresholds the process of opening up the national market will take place in the framework of European integration, to facilitate Italian companies' transition to new operating conditions and ensure that they meet with reciprocal conditions for competition on the European market.

In November 1999 the Antitrust Authority presented the Government and Parliament with an opinion on the criteria contained in the law in which it underlines the need to eliminate the disparities favouring Eni S.p.A. and its subsidiaries and to ensure transparent, non-discriminatory conditions for regulated access to the system; the Antitrust Authority's recommendations would strengthen the role of the AEEG. The opinion called for:

- the inclusion as eligible customers of all consumers who, under the current system, negotiate their supplies with Snam S.p.A. collectively or individually;
- the adoption of measures to ensure that Eni and Snam transfer to third parties a quota of their supplies of natural gas (both foreign and domestic), in full respect of any take-or-pay commitments pre-dating the adoption of Directive 98/30/EC;
- the unbundling of the supply, transportation, storage and sale of gas, and the setting of a deadline for the separation of ownership of the same;
- guaranteed use of existing stocks by all operators on the national market and elimination of the normative requirements linking storage licences to exploitation licences.

In December 1999 the AEEG submitted to the Government its observations and proposals for the implementation of Directive 98/30/EC. These proposals focus on:

- the conditions for the introduction of true competition on the supply side (maximum market shares, transfer of capacity by the dominant operator);
- redefinition of storage arrangements (strategic and balancing) and storage access conditions (separation from the other activities);

- transparent and non-discriminatory access to the system (separation of transportation and despatch, coordinated management of the interconnected networks, up-grading and development of new infrastructures);
- the regulation of distribution and sales (separation of distribution and sales, at least in accounting and management terms, regulation of access to the distribution networks, permit system);
- definition of eligibility thresholds (final customers with consumption of over 200,000 m³/year taken individually or in the form of consortia, medium size distributors, resellers and wholesalers).

The Legislative Decree of May 2000

In May 2000 the Government issued the Legislative Decree implementing Directive 98/30/EC concerning common rules for the internal gas market. The Decree goes further than merely transposing the Directive, since it regulates the entire sector. The importation, exportation, transportation, despatch, distribution and sale of natural gas are declared to be free within the provisions of the law, while for exploitation and storage the current licence arrangements are changed. The provisions envisaged by the Legislative Decree can be summarised as follows:

Imports and supply: imports from non-EU countries are subject to authorisation by the Ministry of Industry on the basis of objective, non-discriminatory published criteria regarding technical and financial capabilities; assurances concerning the origin of the gas; the availability of strategic storage capacity in Italy in proportion to the quantity of gas imported annually; and the ability to contribute to the development and safety of the system or to the diversification of supply. Natural gas importers must inform the Ministry of Industry and the AEEG of certain aspects of the contracts already in force (duration, quantities, country of production, contractual obligations, and so on). LNG imports are also facilitated through the reduction of strategic storage obligations. Two transitional annual constraints are introduced to facilitate the entry of new operators: a ceiling on the national consumption level that can be served by a single company from 2003 to 2010 (50%) and a ceiling on the deliveries to the national network by any single company from 2002 to 2010 (initially 75% of national consumption, with a reduction of two percentage points per year, to 61%).

National production: incentives, funded by royalties, for geophysical surveys for new deposits, and for the exploitation of marginal deposits.

Transportation and despatch: these are free but public interest activities, with connection and network access obligations according to the criteria and tariffs laid down by the AEEG.

Storage: storage is conducted on a licensing basis lasting no more than 20 years, and is subject to access obligations according to the criteria, priorities and tariffs laid down by the AEEG. Storage and exploitation activities will be separated. The conversion of depleted gas deposits for storage will be facilitated. The use of other geological structures in addition to depleted deposits is also envisaged.

Distribution: distribution, assigned solely through competitive bids, is declared to be a public service with connection and network access obligations according to the criteria and tariffs laid down by the AEEG. For current concessions and licences a transition phase to encourage concentration is envisaged.

LNG: LNG infrastructures are subject to regulated access arrangements, with access obligations according to criteria and tariffs laid down by the AEEG.

Sale: from January 2003 the sale of gas is subject to authorisation by the Ministry of Industry, based on availability of adequate modulation and storage services, the origin of the gas and reliability of transportation facilities, and appropriate technical and financial conditions. The AEEG will monitor the transparency of the contracts, and also has a power of intervention.

Eligible customers: in addition to operators using natural gas for electricity production and cogeneration, eligibility is also extended to distributors (for gas consumed in their distribution network) and customers who consume over 200,000 m³/year, and to producer-users of national gas; with effect from January 2003 all customers will be eligible. Wholesalers are also considered as eligible.

Unbundling: by January 2002, transportation should be unbundled from other activities, with the possible exception of storage. Distribution and sales to final customers should also be separated. For distribution and sales companies with less than 100,000 final customers a transition period is envisaged during which accounting and management unbundling will be obligatory.

Protection and development of competition: from 1 January 2003 to 31 December 2010 no company may sell to final customers, directly or through other companies in the group, more than 50% of national consumption (with the exception of self-consumption within the same group of companies); from 1 January 2002 to 31 December 2010 no company may, directly or through other companies in the group, input to the national network more than 75% of the gas consumed nationally (with the exception of self-consumption within the same group of companies); this percentage will be reduced by 2% a year until it reaches 61% in 2009.

Social clause: the Ministry of Industry and the Ministry of Labour are entrusted with the necessary powers to govern the social repercussions of the transformation of the gas system.

Public utility: standardised public utility declarations for gas system infrastructures will be issued under the responsibility of the Ministry of Industry (or, for gas distribution pipelines, the competent local authority) to all operators who intend to construct them.

Reciprocity: companies located in Italy have the right of access to gas systems in other EU member states and the right to agree supply contracts with customers declared eligible in these countries, where this type of client has also been declared eligible in Italy. Gas companies located in other EU member states may only agree sales contracts with customers declared eligible in Italy if the same type of client has been declared eligible in the other state. A monitoring system is envisaged for the European liberalisation process.

Import capacity and free market: the electricity sector

Legislative decree 79/1999 liberalised electricity imports and exports "in full respect of public service obligations". Energy exchanges with neighbouring countries are both a means of achieving the integration of the European markets as envisaged by Directive 96/92/EC and a tool to increase competition. However, the impact of international electricity trade is seriously limited because of insufficient transmission capacity

The Italian electricity network is currently interconnected with the networks of neighbouring countries by five 380 kV lines, of which one is a double circuit line (Rondissone in Italy to Albertville in France), nine 220 kV lines and an AC/DC conversion station in Lucciana (Corsica) with a nominal

power of 50 MW. The lines making up the AC interconnection network with countries outside Italy are shown, as they currently stand, in table 1.

TABLE 1
ALTERNATING CURRENT INTERCONNECTION LINES WITH COUNTRIES
OUTSIDE ITALY

LINE ITALIAN STATION – STATION ABROAD	NOMINAL VOLTAGE (kV)	COUNTRY	LENGTH ITALIAN STRETCH (KM)
VENAUS – VILLARODIN	380	FRANCE	9
RONDISSONE – ALBERTVILLE (A)	380	FRANCE	120
CAMPOROSSO – BROCCARROS	220	FRANCE	10
BULCIAGO - SOAZZA	380	SWITZERLAND	79
MUSIGNANO - LAVORGO	380	SWITZERLAND	6
PALLANZENO – MOREL	220	SWITZERLAND	20
MESE - GORDUNO	220	SWITZERLAND	32
SONDRIO - ROBBIA	220	SWITZERLAND	25
PONTE - AIROLO	220	SWITZERLAND	10
AVISE - RIDDES	220	SWITZERLAND	20
VALPELLINE - RIDDES	220	SWITZERLAND	14
REDIPUGLIA - DIVACCIA	380	SLOVENIA	10
PADRICIANO - DIVACCIA	220	SLOVENIA	2
SOVERZENE - LIENZ	220	AUSTRIA	57

(A) Double circuit line

Source: Data from GRTN

Plans to expand the network envisage only one long-distance power line project, for the 400 kV DC connection between Italy and Greece that is currently being constructed by means of an underwater cable across the channel of Otranto. This link, which is scheduled to come on line in 2002, will increase maximum overall importable power by a further 600 MW at the Italian-Greek border.

The value of the Gross Transfer Capability (GTC) of the lines in the winter period is 11,950 MVA which, taking an average power factor of 0.95, corresponds to about 11,350 MW, to which should be added 50 MW from the AC/DC conversion station at Lucciana.

During the summer, the total capacity is 10,220 MVA, which corresponds to about 9,700 MW. The Gross Transfer Capability does not correspond to the actual net transmissible capacity (Net Transfer Capacity, or NTC). This is because a variety of factors, linked to the topological and electrical characteristics of the interconnected networks and the security criteria applied to the electricity system, taken together produce a limitation of the total interchange capacity with other countries. Taking these factors into account, the Net Transfer Capacity, defined as the overall capacity that can be used for imports, amounts to 5,400 MW in the winter period, 5,000 MW in the summer, and 2,200 MW in the month of August (Table 2).

TABLE 2
NET TRANSFER CAPACITY AT THE VARIOUS ITALIAN BORDERS

NEIGHBOURING COUNTRIES	WINTER MW	SUMMER MW	AUGUST MW
FRANCE	2,000	1,800	1,000
SWITZERLAND	2,900	2,700	1,000
AUSTRIA	200	200	50
SLOVENIA	300	300	150
TOTAL	5,400	5,000	2,200

Source: Data from Grtn S.p.A

Part of the net transfer capacity is taken up by existing import contracts. Table 2.15 shows the overall picture, as from 2000, of the multi-annual import contracts stipulated by Enel. These contracts are divided by country of origin, duration, reserved capacity and total contractual energy in GWh. If we compare the data shown in the two tables (Table 2 and Table 3) as at 1 January 2000, the capacity available on the interconnection lines with neighbouring countries for new contractual commitments (Available Transfer Capacity: ATC) amounts to 2,650 MW in the winter period (2,800 MW from the end of January) and 2,400 MW in the summer.

In the year 2000 this capacity was assigned to those operators who had submitted applications (44 applications), subject to restrictions on the share of total capacity and checks on certain technical and commercial requirements. The result is a flow of imported electricity estimated at 24 TWh.

TABLE 3
MULTI-YEAR CONTRACTS WITH ENEL S.P.A. AT 1 January 2000

BORDER	CONTRACT ^B	EXPIRY DATE OF CONTRACTS	MAX RESERVED CAPACITY (MW)	TOTAL ENERGY ^A GWh/year
FRANCE	Contract 1	31/12/ 2007	1,800 (1,400 from 1/1/03)	14,488 (9,150 from 1/1/03)
SWITZERLAND	Contract 2	31/12/2011	600	5,021
	Contract 3	31/12/2002	200	1,603
AUSTRIA	Contract 4	29/01/2000	100	70
	Contract 5	31/01/2000	50	37
TOTAL			2,750	21,219

^A Estimate

^B Agreed name for contracts

Source: Data from Grtn

THE ELECTRICITY SECTOR

Activities carried out

The approval of Legislative Decree 79/1999 introduced substantial changes to the national electricity market. In keeping with the mandate contained in Law 481/95, which entrusts the AEEG with the task of promoting competition and opening up the market, the work of the AEEG focused on the adoption of provisions for electricity liberalisation. New rules were introduced to regulate operators' access to the network. In provision 13/1999 the AEEG set out the wheeling tariffs and the technical and economic requirements to enable eligible customers to request the transportation of electricity.

The separation of the activities involved in the various stages of electricity production and distribution is a pre-condition for the creation of a competitive market. To this end the AEEG laid down new rules in Decision 61/1999 for the accounting and administrative unbundling of electricity companies and for companies operating jointly in electricity and other sectors. The new rules also apply to GRTN, the Single Buyer and resellers. In Decisions 78/1999 and 91/1999 the AEEG defined the minimum clauses to be inserted in bilateral contracts, identified the various categories of operators entitled to eligible status and provided for the list of eligible customers to be drawn up.

On the basis of reports presented by electricity producers, in Decision 82/1999 the AEEG amended the pricing system, previously laid down in Decision 162/98, for excess energy produced by hydroelectric plants with power capacity of up to 3 MW. In Decision 157/1999 the AEEG set out the funding arrangements for GRTN; these will not produce increases in the electricity tariff.

To promote competition and liberalisation in the sector, in Decision 158/1999 the AEEG established that annual contracts must contain a clause providing for unilateral withdrawal by eligible customers. Customers are required to give the distribution companies up to one month's notice, even if they acquired eligible status when the contract was already in force.

The rules for electricity imports were defined in a series of AEEG provisions (nos. 162/1999, 172/1999, 180/1999 and 182/1999) on the basis of which the terms and conditions for imports, and the procedures GRTN has to follow in assessing import applications for 2000 and in allocating the interconnection capacity available for the free market, are governed.

The most significant provisions adopted by the AEEG in 1999 concern the reform of the electricity tariff (provisions 204/1999 and 205/1999). In setting out the new tariff regime for the supply of electricity to captive customers (Decision 204/1999), the AEEG acted on the principle that tariff levels should correspond to the costs and quality of the service received.

To summarise, the main elements of the reform include:

- the reduction of user categories: from 52 to 9 tariff bands;
- the possibility for distribution companies to formulate tariff options that respond to customers' specific needs. These options must be approved by the AEEG and offered without discrimination to all customers belonging to the same user category;

- a widening of the range of reserved capacity levels, with the introduction, for domestic users, of bands increasing by multiples of 1.5 up to 6 kW, and multiples of 5 for over 10 kW;
- the linking of tariff and service continuity levels in order to encourage improvements, especially in areas with lower quality levels.

The single national tariff has been maintained, albeit with the introduction of elements of flexibility and commercial criteria in keeping with the gradual liberalisation of electricity supply.

With Decision 205/1999 the AEEG regulated the selling price of electricity by producers to distributors, and defined the fee for the transportation on the national transmission and distribution networks of electricity purchased by distribution companies to supply captive customers.

In 1999 the AEEG also carried out technical checks and plant inspections.

The AEEG's first initiatives in 2000 concerned GRTN. In keeping with the provisions of Legislative Decree 79/1999, in Decision 52/2000 the AEEG issued GRTN with guidelines for the adoption of technical rules for the planning and operation of generation plants, distribution networks and connected equipment, interconnection circuits and direct lines, in order to guarantee safety, the most appropriate connection to the national transmission network, and operational connectivity between networks. With Decision 63/2000 the AEEG set the fee for access to and use of the national transmission network, to be paid to GRTN to fund its activity in 2000.

The implementation of the tariff reform

Tariffs for the sale of electricity and transportation fees for distribution companies.

In keeping with the vertically integrated organisation of the electricity sector, prior to Legislative Decree 79/1999 electricity tariffs did not show the costs of generation, transportation, distribution and sales as separate items.

Each producer-distributor withheld revenue from electricity supply tariffs to cover fixed generation costs and transmission, distribution and sales costs. Companies involved only in distribution purchased electricity from Enel at the resale tariff, to cover fixed generation and transportation costs. The variable costs sustained by production-distribution companies for the generation of electricity from conventional sources were covered through a mechanism based on differentiated subsidies for production from thermoelectric and conventional hydroelectric sources that was introduced with Decision 70/97. In the market framework drawn up by Legislative Decree 79/1999, distribution companies will:

- purchase from the Single Buyer the electricity they supply to captive customers at prices set by the same Single Buyer or, in the early stages, purchase from Enel any electricity they are not able to produce from their own generation plants for the captive market;
- purchase transportation on GRTN's national transmission network at fees set by the AEEG;
- if necessary, purchase transportation on the distribution networks of other companies at fees set by the AEEG;
- distribute and sell electricity to captive and eligible customers.

Under the new electricity market framework, the supply of electricity to captive customers involves costs borne directly by the supply company for the transportation of electricity on its distribution and sales networks, plus costs originating upstream (costs of purchasing and transporting electricity on the national transmission network and, in some cases, on the distribution networks). This has created a need to review both the rules governing relations between distribution/supply companies and generation/transmission companies, and the mechanisms for transferring the costs of the electricity service to customers.

Wholesale Electricity Price

The arrangements for the supply by distribution companies of electricity to captive customers will change over time as a result of the implementation of Legislative Decree 79/1999. The decree envisages two transition periods. In the first, the distribution companies will purchase from Enel the electricity they are not able to produce for the captive market from their own plants; in the second, the Single Buyer, once it is fully operational, will be supplied by producers on the basis of contracts stipulated under transparent, non-discriminatory procedures. Once the transition is complete the Single Buyer will be supplied with electricity mainly or exclusively through the supply system run by the Market Operator.

The wholesale price of electricity for the captive market consists of two elements, one to cover fixed plant costs differentiated by time bands, and the other to cover fuel costs.

The first element has been calculated for 2000 in such a way as to cover fixed allowed costs for electricity generation from hydroelectric, thermoelectric and geo-thermoelectric sources. These are set on the basis of a survey of existing operators' costs.¹

The second element is equal, in each two-month period, to the variable unit allowed cost of electricity produced by thermoelectric plants using commercial fossil fuels (Ct), as defined by AEEG Decision 70/97.

Distribution companies taking electricity directly from the national transmission network will pay Enel the wholesale price for electricity supplied to captive customers over and above the electricity produced by their own generation plants and not intended for the free market. This price will be multiplied by a coefficient to cover network losses. Distribution companies not directly linked to the national transmission network will pay the distributor whose network the electricity has been withdrawn from the wholesale price multiplied by a coefficient to cover network losses on the national transmission network and distribution networks, for any electricity intended for the captive market that they are not able to produce from their own plants.

To ensure a gradual changeover to the new tariff arrangements, in Decision 205/1999 the AEEG has allowed a further revenue component of 6 lire/kWh for the years 2000 and 2001 for electricity producers supplying the captive market, with the exception of the electricity eligible for subsidies under the terms of CIP provisions 15/89, 34/90 and 6/92.

¹ Excluding those eligible for subsidies under CIP Provisions 15/89, 34/90 and 6/92

Hydroelectric revenue and stranded costs

Uniform values for electricity entering the network from different generation plants at the same time are a necessary element of the liberalisation process. The selling price set by the AEEG will therefore apply to the sale of electricity produced by any plant for the captive market.

The sales price includes a component to cover fixed costs that is applicable to all generating plants using conventional sources, and a component covering variable costs, typically of fuel. In the absence of any further interventions hydroelectric and geothermal generation by production-distribution firms would increase in value with respect to the past. This consideration also depends on the fact that the sale or reference price will include a component to cover variable costs (of fuel) which these plants do not actually pay and for which no tariff subsidy was allowed under the previous system.²

This higher value, if left to the benefit of the production-distribution companies, would create revenue for them and as a direct consequence of the liberalisation process would generate a cost for the electricity system. It would impose higher tariffs on consumers, which were not based on higher costs. In the case of the electricity produced by hydroelectric and geothermoelectric plants:

- the transition from a system of administered tariffs to a system where the price of electricity at the generation stage is set through market rules can result in production-distribution firms being unable to recover part of the costs already sustained for the development of generating plants. Under the previous system these were covered by the tariff;
- some of production-distribution companies' costs are to be recognised as stranded costs. These refer to investments made in connection with contractual undertakings pre-dating liberalisation;
- the AEEG proposed to the Ministry of Industry in Decision 138/1999 that the increased value of electricity produced by hydroelectric and geothermoelectric plants that, as of 19 February 1997, were owned by or available to production-distribution companies and not eligible for subsidies pursuant to CIP provisions 34/90 and 6/92 and subsequent amendments and additions should be balanced out by subjecting this electricity to increased fees for access to and use of the transportation network, until the expiry of the current licences for the use of water and geothermal resources for electricity production;
- in Decision 205/1999 the AEEG established that on a transitional basis the existing arrangements for the compensation for the variable costs of electricity generation for captive customers, based on differentiated subsidies for electricity production from thermoelectric and hydroelectric sources, should be maintained. Again on a transitional basis, electricity generating companies receive from distribution companies the wholesale electricity price component covering fixed generation costs, and from the Compensation Fund for the Electricity Sector the subsidy covering variable generation costs. To fund this subsidy the distribution companies still pay into the Fund the revenue from part B of the tariffs applied to captive customers.

² Excluding that eligible for subsidies under the terms of CIP Provisions 15/89, 34/90 and 6/92

Transportation of electricity for captive customers on the national transmission and distribution networks.

With Decision 205/1999 the AEEG defined the fee for the transportation on the national transmission network and distribution networks of electricity purchased from distribution companies to supply customers on the captive market.

The transportation of electricity for captive customers has different characteristics from the wheeling of electricity to customers on the free market. These condition the structure of the applicable fees. In the first case those requesting the wheeling service have the option of specifying different reserved capacity levels for each hour of the year; if the power withdrawn exceeds the stipulated level, penalties are applied. The tariff structure applied to electricity wheeling for customers in the free market assumes, on the one hand, that applicants have control of their load profile, and on the other, that the service provider can measure this profile. This is not the case with the transportation of electricity for captive customers. Here, the hourly measurement of the load profile of each captive user is not justified in terms of cost and the distributor has no control over the electricity uptake profile of captive customers. The distribution companies therefore pay GRTN, for the transportation of electricity for captive customers, a fee related to the net quantity of electricity withdrawn from the national transmission network, divided by time band and adjusted to cover transmission network losses. The division by time bands of the transportation fee for captive clients is the same as the one used for the power fee, set by AEEG Decision 13/1999, for the wheeling of electricity for eligible customers on high- and very high-voltage lines.

In addition to a fee for transportation over the network, distribution companies connected to other distribution networks pay the companies whose network they are connected to a fixed sum applied at each delivery point, to cover sales and distribution costs. They also pay a fee expressed in lire/kWh applied to the net quantity of electricity withdrawn and differentiated on the basis of voltage at withdrawal.

Tariff regulation of the electricity service for captive customers

The electricity tariff system operating before the reform introduced by the AEEG was based on administered final user tariffs and included a very high number of tariff categories.

The need for a reform of the tariff system arises from several factors. Firstly, the previous tariff system did not fit well with the gradual liberalisation and opening up the electricity market. An administered price system does not allow the necessary margins of flexibility and commercial criteria for the liberalisation, albeit gradual, of supply.

On the other hand, where the service is not offered in a framework of true competitiveness, price regulation is needed to prevent the abuse of market power by the companies providing the service, to the detriment of customers. The development of competition, in principle possible in the generation and sale of the electricity service, will require time and changes to the organisational framework. The other stages, starting with transmission, have strong elements of technical monopoly and even in the longer term are unlikely to see the emergence of several competing operators.

Secondly, in many cases prices under the tariff system prior to the reform did not adequately reflect the costs of supplying the service to the different user categories. Yet the tariff should be a signal of the cost of the electricity service for each consumer.

Finally, in the past tariffs were set with the aim of covering the overall costs of the services provided, using a mechanism requiring the presentation of the relevant documentation. The guarantee that costs will be covered *a posteriori* does not provide sufficient incentives for companies to keep costs down, since rises are reflected in tariffs and do not affect profitability. At the same time, the benefits of cost reductions do not translate into higher profitability for the company, since they are transferred to consumers in the form of tariff reductions. After consultation with the interested parties, at the end of December 1999 the AEEG adopted Decision 204/1999 containing the new Regulatory system for the basic tariff and for the tariff parameters for the distribution and sale of electricity to captive customers.

The new system pursues several objectives:

- the promotion of efficiency in the production and supply of the electricity service, and its use by customers;
- the promotion of quality in the electricity service;
- the adequate diffusion of the service, taking into account the constraints of national tariff uniformity;
- preserving the profitability and value of companies operating in the sector;
- respect of the public utility requirement set out by the Government in the DPEF (*Documento di programmazione economica-finanziaria* - Economic and Financial Planning Document) for 2000-2003;
- the funding of general interest activities;
- a gradual transition for customers to the new tariff structure .

User Categories

The new tariff order envisages 9 user categories in place of the previous 52. The new sub-division is based on three criteria:

- voltage level;
- type of use, with sole regard to the distinction between residential use, public lighting and other uses;
- whether or not customers in categories other than public lighting or residential use can obtain their electricity from a distributor other than their local one.

The first two criteria make it possible to create user categories that are sufficiently homogeneous in terms of profile and elasticity of demand, a useful classification to evaluate the effectiveness of the tariff regulation mechanism adopted. This should result in tariff options that reflect the costs of the service and limit the potential for price discrimination. The third criterion is designed to avoid price discrimination within categories between captive customers and potentially eligible customers (eligible customers under the terms of Decree 79/1999 who apply for inclusion in the captive market).

Tariff options and system of constraints

The user categories defined using the above criteria contain groups of customers with different requirements. To meet the needs of the different customers and allow tariff solutions to be drawn up, the new system envisages that distribution companies should offer different tariff options to customers of the same category.

By tariff option is meant the set of unit fees that determine the amount clients pay for electricity. These include:

- fees to cover the costs of the electricity supply service. These are set by the distribution company;
- fees relating to tariff elements to cover costs connected with general interest objectives and ensuring a gradual change in tariff levels during the transition to the new order. These are set by the AEEG.

The costs of the electricity service consist of purchase costs, transportation over the national transmission network, and the distribution and sale of electricity.

The costs of achieving general interest objectives include general electricity system costs, which fall on all users of the network,³ and costs sustained in the general interest, which fall only on captive customers. The latter include the cover of imbalances in the cost equalisation mechanisms – to be established and made operative by the AEEG – and imbalances between the additional revenue requirement for production-distribution companies for the captive market and the revenue from increases in the fee for access to and use of the transmission network envisaged for some hydroelectric plants.

In offering the tariff options it considers most appropriate, each distribution company must respect certain rules, including the following:

- the same tariff options should be offered under non-discriminatory conditions to all customers belonging to the same category;
- all the tariff options must correspond to a service that meets the quality and supply standards set by the AEEG;
- all the tariff options must be offered in full respect of the AEEG-approved commercial Code of Conduct that operators are required to submit;
- the tariff options cannot be suspended during the year; nor can they be changed without prior authorisation by the AEEG;
- taking the previous year's supply as a reference, the distribution company must inform each client annually of the best value tariff option available, if this is different from the option actually applied;
- the tariff options must be compatible with the constraints on the prices applied by distribution companies to captive customers.

³ In the case of eligible customers the general costs of the electricity system are imposed through increases in the fees due to GRTN for access to and use of the national transmission network. In the case of captive customers, who do not purchase the electricity transportation service directly, specific tariff components are envisaged.

The regulatory mechanism laid down by the AEEG envisages a general system that applies to all user categories with the exception of low-voltage domestic customers, for whom greater safeguards are provided.

This mechanism is set in such a way as to guarantee that allowed costs for electricity, general system costs and costs sustained in the general interest will be covered, bringing prices and costs closer together for each type of use.

In calculating the allowed costs for distribution companies, typical electricity service running costs are taken into consideration, with the exclusion of extraordinary costs and costs relating to activities not directly connected to the service. Factors considered include:

- operating costs, including the quota for fixed asset depreciation; and
- a reasonable return on the capital invested.

To allow for operating costs the AEEG refers to the costs actually incurred by operators. With regard to the return on invested capital, the AEEG applies a real rate of return to the value of the capital, guaranteeing electricity companies the resources to cover the costs of the various forms of funding their activity. The rate of return is set in such a way that the return on equity or borrowed capital is similar to the one that could have been obtained on the market by investing in activities with a similar risk profile. The arrangements for attributing costs to user categories ensure that the parameters for the constraints and tariffs applied to low-voltage domestic customers make it possible to:

- cover the allowed costs for the electricity service, and
- attribute to each user category the costs that the distribution company has sustained to meet demand from that category.

The constraint and tariff parameters have therefore been constructed taking account of user categories' contribution to cost formation. The principal determinants used are:

- the time profile of consumption;
- the peak power consumption per client;
- the number of customers in the user category;
- the customers' voltage level.

The differences between the values applied to different user categories can be explained, on the one hand, by the different demand profiles, and on the other by differences in the number of elements that go to make up the parameters themselves. High-voltage user categories do not contribute, for example, to covering the costs of transporting electricity on lower voltage networks. Equally, the parameters covering distribution costs on low-voltage networks are not applied to medium-voltage customers. The construction of tariffs and tariff constraints based on the cost responsibilities of the different types of user could involve variations – often considerable – in the amount some customers pay for the electricity service with respect to the previous levels. To ensure a gradual transition to the new tariff regulation system, the AEEG will be phasing it in gradually for both domestic and non-domestic customers.

The regulation of supply tariffs for non-domestic low-voltage captive customers

For non-domestic low-voltage captive customers the new regulatory mechanism is based on ceilings applied to distribution companies' tariff revenue. These constraints are of two types:

- the overall revenue from sales to customers in each category cannot exceed a ceiling set by the AEEG; this ceiling is defined as a limit to revenue to ensure that the costs allowed for supplying the single user categories and the cost of funding general interest objectives can be covered (constraint V1);
- the tariff options offered to the customers of each category must include at least one, defined as the "basic tariff option", that ensures that each client pays no more than a maximum amount set by the AEEG (constraint V2).

The basic tariff options must be compatible with constraint V2 and may only include fees relating to the electricity supply characteristics (such as energy withdrawn, power stipulated, time profile). The distribution companies must offer at least one basic option to the customers in any given category (with the exception of low-voltage domestic customers).

In addition to the basic tariff options operators – subject to AEEG approval – can also offer "special" options which enable them to achieve higher revenue to offset the costs sustained in supplying services over and above those linked to the basic tariff options, with reference also to quality. The special tariff options are not subject to constraint V2. The basic and special options offered to each user category (with the exception of low-voltage domestic customers) must not generate overall tariff revenue that is higher than the ceiling set by constraint V1.

The ceiling set by the tariff constraints depends on the characteristics of the supplies they refer to (in terms of reserved capacity and number of customers). The parameters defining them are uniform throughout the country.

Checks are carried out at the end of each year on whether constraint V1 has been respected. In cases where the tariff options offered over the year to customers belonging to any one category do not respect constraint V1, a refund mechanism is envisaged. For constraint V2, distribution companies will be required to apply to the AEEG to confirm in advance that each basic tariff option is being respected.

For non-domestic customers a separate treatment is reserved for special tariff regimes. These consist of user categories or single users who currently enjoy special tariff conditions laid down by law. The customers in question will be subject to the tariff conditions envisaged for users as a whole and to a compensatory tariff element set by the AEEG. This element is also envisaged in cases where the electricity supply is provided by an operator other than the distributor whose network the user is linked to. In this way the obstacle that special tariff regimes might pose for market liberalisation is removed: customers, if eligible, can choose their supplier under equally competitive conditions in the captive and eligible markets.

Under the previous system the tariffs applied to customers in each tariff category differed significantly from the costs of supplying the electricity service. Under the new system, constraints and tariffs based on the cost responsibilities of the different user categories could produce variations, in some cases considerable, in expenditure levels. With Decision 204/1999 the AEEG provided for a gradual transition to the new tariff levels from 2000 to 2001. For 2000, the changeover should not involve tariff

increases for any category as a whole that cannot be traced back to cost movements related to international fuel price trends.

To phase in the transition to the new order gradually, special tariff elements were defined for each tariff category existing at 31 December 1999. The distribution companies must apply these elements to all non-domestic customers over the 6-month transition period. The "gradual" elements are to be halved starting from 1 January 2001 and phased out altogether by 31 December of the same year.

Since the new tariff order also involves a radical and burdensome change for operators with respect to the previous system, for the first 6 months of 2000 Decision 204/1999 envisages a transitional stage during which operators apply tariffs, distinguished by category, set by the AEEG. The transition from administered prices to tariff regulation based on revenue constraints and the "gradual" tariff elements defined by Decision 204/1999 was postponed to the second half of 2000. During the first half of 2000 operators must provide their non-domestic customers with tariff options similar in structure to the tariffs in force for each user category at 31 December 1999, with fees lowered in line with the tariff constraints set for each user category for 2000.

Regulation of tariffs for low-voltage domestic customers

The new regulatory mechanism envisages greater protection for low-voltage domestic customers with respect to customers as a whole. In keeping with the principle of covering the costs of the electricity service, the AEEG has set a tariff that companies are obliged to offer customers in this category.

In order to provide adequate margins of flexibility for customers and distribution companies, operators have been given the opportunity of offering additional tariff options to the one set by the AEEG, subject to the same regulations as the special tariff options for non-domestic customers.

The obligatory tariff represents a substantial change with respect to the previous system for domestic customers with reserved capacity of up to 3kW. The progressive structure with respect to consumption is being phased out, although this process will not be completed until the end of 2004. The AEEG has set two transitional tariffs that distribution companies are obliged to offer all domestic customers. These are broadly similar in structure to the single obligatory tariff. The AEEG will adjust the fee for the two transition tariffs annually in order to draw them together in the obligatory single tariff envisaged for this user category by 1 January 2003.

The new tariff system for domestic customers provides greater protection for lower income customers, who will be given guaranteed access to lower tariffs. Access will be based on the parameters measuring the degree of disadvantage. The eligibility selection mechanism is due to come into operation in 2001. As illustrated in the November 1999 consultation document, the more protective system will be funded by a specific tariff element covered by domestic customers as a whole. In the meantime the transition stage has been designed in such a way as to maintain similar tariff conditions in 2000 to those in force at 31 December 1999 for the first 150 kWh of monthly consumption for resident customers with reserved capacity of 3 kW. Consumption profiles have therefore been retained as an eligibility indicator for the lower tariffs, until the new selection mechanism is in place.

Adjustment of constraint and tariff parameters for low-voltage domestic customers

With regard to the component covering the costs of the transmission, distribution and sale of electricity, the adjustment of the tariff constraint parameters for customers as a whole and the obligatory tariff for

low-voltage domestic customers is defined by Decision 204/1999⁴. Law 481/95 envisages the price cap method for the tariff elements covering the allowed costs for these activities. These elements are subject to tariff movements within the regulatory period and a re-setting of the tariff level at the end of this period. Decision 204/1999 envisages a regulatory period of four years starting from 2000, within which the tariff elements or components are adjusted by applying to their recorded value for the previous year:

- the average annual variation over the previous twelve months of the ISTAT (National Statistics Institute) cost of living index;
- the annual rate of reduction of allowed fixed unit costs, set at 4% per year;
- the rate of variation of any costs that might arise from unforeseeable and exceptional events, changes to the legislative framework and changes in universal service obligations;
- the rate of variation of any costs relating to initiatives to control demand through the efficient use of resources that may be laid down by the AEEG in later Decisions;
- the rate of variation linked to increases in allowed costs deriving from improvements in service quality (designed to procure the revenue to promote such improvements).

The elements covering the costs of general interest objectives will be adjusted by the AEEG on the basis of revenue requirements.

Opening of the electricity market

Contractual clauses for eligible customers

In Decision 78/1999 the AEEG defined the obligatory contractual clauses for insertion in the new bilateral contracts for the sale of electricity on the free market. The Decision envisages three obligatory clauses designed to protect customers in the initial phase of competition among producers. It envisages that:

- the contracts must provide the parties with the option of unilateral withdrawal with six months notice for customers and one year for suppliers;
- the contracts may be terminated in cases where customers lose the right to operate on the free market;
- the allocation to the parties to the bilateral contract of the rights, costs and obligations deriving from the electricity wheeling contract should be defined.

Other contractual clauses and technical regulations should be inserted in the contracts at a later date to take account of the gradual development of the electricity market.

⁴ On the basis of Law 481/95 the adjustment of the part designed to cover fossil fuel costs and electricity purchased from national producers or imported must be based on automatic calculation mechanisms defined by the Authority. These mechanisms were set out in Decision 70/97 and subsequent amendments.

Until the electricity exchange is operational, copies of bilateral contracts drawn up on the free market must be sent to the AEEG, which can thus evaluate the progress being made in the development of competition.

Recognition of the status of eligible client and creation of the list of eligible customers

Legislative Decree 79/1999 identifies various categories of operators who, if they meet certain requirements, are entitled to eligible customer status or have the option of stipulating electricity supply contracts with any producer, distributor or wholesaler in Italy or abroad. The following are entitled to eligible status:

- distributors who are considered eligible customers "only for the electricity destined for eligible customers connected to their networks";
- wholesale purchasers who are considered eligible customers "only for the electricity consumed by eligible customers with which they have entered into sales contracts";
- operators granted eligible status by other EU states;
- the companies of the autonomous Provinces of Trento and Bolzano;
- final customers whose consumption (including self-production), measurable in one single offtake point, was more than 30 GWh the previous year;
- companies, groups of firms, consortia and similar, whose consumption (again including self-production), was more than 30GWh the previous year. In the case of consortia the threshold can be reached either in a single consumption site or in multiple sites grouped in consortia, provided that the latter meet the following criteria: a) that the consortium has a total consumption of at least 20 million KWh per year; b) that each member of the consortium has a consumption of at least 2 GWh per year; c) that consortium members are located in a single municipality or in contiguous municipalities

In Decision 91/1999 the AEEG set out the arrangements for drawing up the list of eligible customers and the conditions for the recognition and monitoring of eligible status.

Creation of the list of eligible customers

In the free electricity market it is important to provide reliable data to operators intending to enter into supply contracts, and to guarantee transparency in the formation of commercial relations. To this end the AEEG has drawn up a list of operators entitled to eligible status. The list is published on the AEEG's Internet site.

Arrangements for the recognition and monitoring of eligible client status

Art. 14 (8) of Legislative Decree 79/1999 envisages that during the early stages of implementation to obtain the eligible status the parties should submit to the AEEG a declaration stating the energy they have withdrawn from the network. Decision 91/1999 extends the self-certification mechanism to the later stages of implementation, and to simplify the procedure contains an annex with standard self-certification forms. Decision 91/1999 also clarifies some of the requirements for eligibility. For final

customers with consumption in a single location, or for companies, groups of firms, consortia and similar, whose consumption can take place in different locations, the AEEG has introduced the concept of “site” or set of linked metering points which are located in a defined area at the disposal of a single consumer and or one single component of the group. In the case of groups, consortia and similar, it is the group or consortium, and not the individual members, that will enjoy eligible status and be entitled to sign supply contracts with producers, distributors or wholesalers in Italy or from neighbouring countries

Finally, to reduce the administrative burden on operators already included in the list of eligible customers, Decision 91/1999 does not require these operators to repeat the self-certification process every year. They should however inform the AEEG of any variations subsequent to the initial self-certification, if these would involve the loss of even one of the requirements envisaged for eligible client status. The AEEG will adjust the list of eligible customers periodically on the basis of the information provided.

Regulation of the national transmission network

Non-discriminatory access to the networks, and to the national transmission network in particular, is provided through an economic and technical regulatory procedure that allows a reliable, transparent and stable legislative framework to be put in place.

With this aim in mind, and in keeping with the provisions of Directive 96/92/EC, Decree 79/1999 envisages that GRTN should adopt a set of technical rules on connection to the national transmission network by generation and distribution plants, final customers and other networks, in order to guarantee network security and interoperability.

The elaboration, application and up-dating of these technical rules is governed by decisions issued by the AEEG which set out objectives and general principles, technical guidelines and procedural mechanisms, and envisage an active role for the interested parties in drawing up the rules. In 1999 the AEEG published a consultation paper to gather the views, comments and observations of operators already using the national transmission network and other potential customers.

Almost all the generating capacity – and in particular generation in excess of 10 MVA – is linked to the transmission network (about 98% of the power installed in Italy). If this criterion were reiterated in the future as a guiding principle for the development of the network, all new generation plants of over 10 MVA would be connected to the transmission network. This factor would greatly increase the significance of the network itself as a crucial infrastructure for access by new entrants to the national electricity market. The AEEG adopted the above guidelines in the early months of 2000 and set a deadline of 31 May 2000 for the presentation of the technical rules by GRTN. In 1999 the AEEG also initiated the inquiry procedures for a standard agreement between GRTN and owners or operators who manage sections of the national transmission network pursuant to Art. 3 (7) of Legislative Decree 79/1999. The agreement will regulate relations between the parties on matters concerning the management, running, maintenance and development of the component parts of the national transmission network; it is thus an essential contractual instrument for the definition and separation of the different transmission functions on the network. The agreement will also regulate the technical relations between GRTN and the owner, including the arrangements for checking faults and other shortcomings, economic relations, with annual fees for the remuneration of activities and investments, and the involvement of the regional authorities in the siting, rationalisation and development of the network.

The extent of the national transmission network

Legislative Decree 79/1999 envisages that the Ministry of Industry should issue a decree setting out the extent of the national transmission network, including networks with voltage equal to or greater than 220 kV and those parts of the network with voltages of between 120 kV and 220 kV (high-voltage) that will be identified on the basis of functional criteria. The draft decree submitted to the AEEG in June 1999 envisaged that very high voltage plants should come under the national transmission network, regardless of their function. A high proportion of potential eligible final customers (about 80% of high-voltage users) are directly connected to portions of the high-voltage network that do not belong to the national transmission network.

The AEEG considers that the allocation of very high voltage infrastructures to the national transmission network suggests a need for exceptions in the case of networks with mainly distribution functions in metropolitan areas, and that infrastructures with nominal voltage levels of between 120 kV and 220 kV which, on the basis of the outline decree, are not included in the national transmission network, should be allocated entirely to distribution activity. The AEEG essentially agreed with the outline decree, but suggested the following improvements:

- a clear definition of the distinct activities of managing the national transmission network and operating transmission plants. The first is allocated entirely to the operator and the second to the owners of portions of the network;
- the addition of a rule envisaging the allocation to distribution activity of those parts of the network with nominal voltage of between 120 kV and 220 kV which, on the basis of the outline decree, are not part of the national transmission network.

The AEEG also considered that the draft decree should contain provisions regarding plants belonging to the Ferrovie dello Stato S.p.A. (the State Railways, hereafter FS) that are not included in the national transmission network, since some final customers connected to these networks have electricity wheeling arrangements with third party suppliers other than the FS itself. In the AEEG's view, access to these networks should be regulated in such a way as to avoid discrimination against customers connected to them and its Decisions on the subject of tariffs, contributions and costs should also apply to them.

Connection lines allocated on a functional basis to the national transmission network must be capable of carrying all the power that can be produced at the production site and must be included in the national transmission network by two or more trunk connections with different nominal voltages (which can also belong to different networks) to the electricity production site itself.

The AEEG's proposal also underlines the fact that all the interconnection lines with neighbouring countries should be included in the national transmission network on condition that these lines interface with foreign transmission networks and are not considered as direct lines under the terms of Art. 21 of Directive 96/92/EC and Art. 2 (16) of Legislative Decree 79/1999. It also specifies the technical requirements for plants and structures required for the proper management and operation of the network.

The AEEG is to issue guidelines setting out the functional separation of transmission and distribution, and of transmission and production activities in electricity stations that are connected to, but not included in, the national transmission network. It will also issue guidelines for the identification and

definition of the points of delivery to GRTN of electricity sold to it under Decree 79/1999. These will also apply to production plants that are not directly connected to the national transmission network.

The AEEG also underlined the need for GRTN to entrust limited portions to third parties other than transmission network owners or operators managing them. In this way distribution companies could also be included and entrusted with limited sections of the network that, although part of the national transportation network, carry out a distribution function (such as very high voltage infrastructures in towns).

In Decision 52/2000 the AEEG issued guidelines to GRTN for the adoption of technical rules for the planning and functioning of generation plants, distribution networks, directly connected equipment, interconnection circuits and direct lines, in order to guarantee the most suitable connection to the national transmission network, as well as safety and operative connections between networks.

In March 2000 the AEEG approved Decision 63/2000 on the *Adoption of Provisions concerning the funding of the national transmission network operator*.

The fees for access to and use of the national transmission network are currently set, for free market customers, by Decision 13/1999, and for captive customers, by Decision 205/1999. These fees are pitched in such a way as to guarantee that cover will be provided for the allowed costs for activities carried out by GRTN and the allowed costs for a reasonable return on the activities and investments carried out by the owners of the transmission networks. Decision 63/2000 also envisages the following allowed costs for the functioning of GRTN:

- for electricity for captive customers, a part of the fee for transportation on the national transmission network;
- for wheeled electricity, a part of the power fee envisaged by Decision 13/1999, and the element of the fee intended for use of the system to cover despatching costs, as set out in the same Decision.

The operators' allowed fees were set, for the period from 1 April 2000 to 31 December 2000, at 0.50 lire/kWh for customers on both the captive and free markets, in order to ensure that the allowed costs for all transportation and despatching activities or for all the activities currently carried out directly by GRTN are covered.

Maximum transportation capacity on interconnection lines with neighbouring countries

With Decision 43 of 14 April 1999 the AEEG opened an investigation into the maximum electricity transportation capacity on the interconnection networks with neighbouring countries and entrusted GRTN with the task of putting together the necessary information. In addition to this inquiry, Legislative Decree 79/1999 also envisages that GRTN should draw up a list of the electricity lines in the national transmission network that are interconnected with the electricity systems of other countries, distinguishing between member states of the European Union and others. GRTN should then notify the Ministry of Industry, and the AEEG itself, of the capacities used respectively for the importation and exportation of electricity and the capacities available for new contractual commitments, taking into account the security margins for the functioning of the network.

In compliance with these instructions, and to meet the information and newsgathering requirements of the investigation opened as a result of Decision 43/1999, GRTN sent the AEEG a note analysing the maximum electricity transportation capacity on the interconnection lines with neighbouring countries.

The AEEG performed its task of consulting and reporting to the Government on the subjects within its remit by sending the Ministry of Industry its observations on the possibility of increasing the import transportation capacity of the interconnection lines with neighbouring countries. This was made especially relevant by the fact that GRTN and the other network operators had received numerous wheeling applications for the importation of electricity for Italian eligible customers.

Given the low level of capacity, most of these applications could not be granted in 1999.

The AEEG also stressed the importance of promoting access for imported electricity to the Italian eligible clients market in situations of low availability of competitively priced national energy.

The observations presented to the Government will be made public once further information has been obtained concerning the possibility of increasing the interconnection capacity, especially in relation to the following aspects:

- Extension of the agreed winter period to seven months out of the annual 12, so that the maximum transport capacity values for the winter can be applied to a period lasting for more than half the calendar year;
- Reactivation, in the context of national transmission network development, of interconnection expansion projects that had been drawn up by Enel but not yet implemented. These include, for example, the project presented by Enel in 1997 for the 380 kV international link between the stations of S. Fiorano (Italy) and Robbia (Switzerland).
- Installation of compensatory devices on the interconnection lines with neighbouring countries to enable them to be used more fully and in a more uniform manner;
- Adoption of security maintenance criteria for the interconnected network which, for only some international interconnections and only for certain periods of time, would allow derogations, including partial derogations, from security criterion N-1;
- Substitution of plant ancillary components that limit the maximum transportation capacity on some of the links used for international interconnections;
- Attribution to GRTN of sufficient national generating resources to enable it to meet international contractual commitments in the face of possible reductions in interconnection capacity with neighbouring countries caused by non-scheduled events;
- Adoption of suitable methodologies to provide forecasts of overall national demand and make it possible, using electricity generating plants, to provide a more accurate response to fluctuations in demand;
- Harmonisation of the operation and development of the interconnections between the Italian national transmission network and the networks of neighbouring countries, by drawing up agreements with the operators of the latter.

Conditions for electricity imports

Art. 10 (2) of Legislative Decree 79/1999 envisages that the AEEG should draw up, and issue the appropriate provisions for applying, the terms and conditions for importing electricity in cases where

the available transportation capacity is inadequate, with due consideration for an equitable division between the franchised and free markets. The AEEG is also called upon to issue provisions setting out the conditions and procedures to enable GRTN to refuse access to the national transmission network for electricity imported for a franchised client, if in the country of production the same type of client is not granted similar status. Art. 10 (3) also establishes that the AEEG should issue regulations on the environmental and economic compatibility of electricity imported from non-EU countries, with due consideration for reciprocity arrangements.

On 28 October 1999 the AEEG adopted Decision 162 containing *Urgent provisions on electricity importation pursuant to Art. 10 (2) and 10 (3) of Legislative Decree 79/1999 of 16 March 1999*. In this Decision the AEEG set out the terms and conditions for importation, as well as the procedures that GRTN must follow in verifying the admissibility of import applications for 2000 and the resulting allocation of available interconnection capacity for the free market. The Decision states that 65% of the maximum overall transportation capacity on the interconnections with neighbouring countries should go to the franchised market, and 35% to the free market. Any operators intending to use an international wheeling service in 2000 to import or export electricity are required to submit a special application containing information on intake and offtake points, and to obtain eligible client status. This last point can be satisfied even after the application has been submitted. The information on intake and offtake points is needed to identify the country of origin of the imported electricity, to apply the reciprocity clause, and to allow GRTN to check that the applications are compatible with the secure functioning of the national electricity system.

GRTN will then carry out this check, and verify that the applications are also compatible with the maximum transportation capacity available on the interconnection lines. If both checks produce satisfactory results and the import applications have been granted in full, and it emerges that there is residual capacity or capacity becomes available during 2000, this capacity must be assigned to the interested parties on a first come, first served basis. If, on the other hand, demand exceeds available capacity, this capacity must be allocated on a competitive basis.

With reference to electricity imports from non-EU countries, Decision 162/1999 states that while the issue requires further study, from the year 2001 on these imports will be subject to the rules covering environmental and economic compatibility on the basis of criteria specified in the Decision itself.

After Decision 162/1999 had been approved, the AEEG considered that some amendments should be introduced in order to eliminate any doubts as to interpretation, and to extend the deadline for the submission of international wheeling applications and for the checking of these by GRTN. On 11 November 1999 the AEEG therefore adopted Decision 172/1999 containing *Amendments to Decision 162/1999 of the Authority for Electricity and Gas, dated 28 October 1999*. These amendments specify that the electricity-purchasing consortia should enjoy the same prerogatives as final eligible customers and that the reciprocity arrangements for international imports should be verified on the date the transportation begins.

Following notification by GRTN of the amount of excess demand with respect to available capacity, in Decision 180 of 3 December 1999 containing *Terms and Conditions for electricity imports in the case of insufficient available transportation capacity*, the AEEG laid down that there should be a ceiling to the shares of maximum available transportation capacity held by operators, pursuant to Art. 10 (2) of Legislative Decree 79/1999, and the definition of the tariff in accordance with Art. 5, paragraph 5.4, of Decision 162/1999. The AEEG laid down that for each calendar month of 2000, no operator should have the right to more than 20% of the maximum available capacity for new contractual import

commitments over all the interconnection lines with neighbouring countries. In the case of neighbouring countries with respect to which the total amount of international wheeling capacity applied for is higher than the maximum available capacity, Decision 180/1999 envisages that the maximum available capacity for each operator should be no more than 15%, again with reference to each calendar month of 2000.

Further to Decision 180/1999, GRTN informed the AEEG that after the necessary adjustments had been made to the applications submitted by the interested parties, it had emerged that residual transportation capacity was available on the interconnection lines with some neighbouring countries. Consequently, in Decision 182 of 16 December 1999 containing *Further provisions for the allocation of transportation capacity on the interconnection lines with countries outside Italy for 2000*, the AEEG extended the provisions of Decision 180/1999 by establishing that any residual available capacity should be allocated only to those operators who had already submitted international wheeling applications, without affecting the 20% limit set out in Decision 180/1999. The allocation is definitive only if the operator in question had notified GRTN, no later than 28 December 1999, that it accepted all or part of the assigned capacity, together with the conditions under which it intended to make use of this capacity.

THE GAS SECTOR

Activities carried out

In 1999 the AEEG's activity in this sector focused on the launch of the tariff reform and the implementation of European Directive 98/30/EC.

The new tariff order proposed by the AEEG in early 2000 reflects the structure of the sector resulting from the implementation decree and will define the tariffs for the transportation, storage, distribution (understood as transportation at the local level) and ancillary services, along with final use tariffs that will remain applicable for captive customers, with appropriate adjustments.

The tariff regulation process distinguishes between operations that will continue to be subject to technical monopoly conditions and those that will eventually be opened to competition, to foster the liberalisation of the latter. It recognises cost effectiveness, which can be assessed from comparisons with national and European operators, taking their respective operating conditions into due account. It promotes the maximum assumption of responsibility by operators within the constraints designed to promote service efficiency and quality and limit cross-subsidies between users on the basis of type, size and location. The tariffs are set by operators within the limits set by the AEEG, without discriminating between different user categories. Disadvantaged users are protected and service quality, plant safety, environmental protection and the efficient use of resources are promoted. The changeover from the old to the new tariffs will follow a reliable, gradual timetable.

The measures implemented through Decision 193/1999, which reduced the transportation cost of natural gas (with direct effects on final use tariffs, through the allowed cost for raw material, and indirect effects on the prices applied to thermoelectric and industrial customers, through negotiating criteria), and the adjustment of the indexation criteria for the raw material tariff component as implemented by Decision 52/1999, are part of this framework. In the light of the implementation of the natural gas internal market Directive, the AEEG carried out a survey of the situation in Italy and other European countries and analysed the liberalisation processes in the United Kingdom and North America, formulating its observations and proposals in Decision 181/1999.

As part of its investigation of the price of gas supplied to hospitals the AEEG published a consultation document for the adoption of price-setting criteria that would avoid discrimination between hospital and industrial customers with similar consumption profiles (Decision 29/1999). Following this Decision, in December 1999 representatives of the hospital sector, natural gas distributors and Snam renegotiated supply prices.

Monitoring by the AEEG of the tariffs applied to customers by distribution companies in 1999 brought 150 errors to light. In 46 cases AEEG intervention resulted in tariff reductions that benefited 62,000 customers.

Towards tariff reform

Criteria for the reform of distribution and sales tariffs

As part of the tariff reform process the AEEG published a consultation document containing criteria for the tariffs for the distribution and sale of gas through medium- and low-pressure networks. The

AEEG's proposals are in keeping with the principles inspiring Law 481/95 and with the promotion of competition and consumer protection and will be harmonised with the new structure of the sector that emerges as a result of the implementation of Directive 98/30/EC.

Very briefly:

- the old method of tariff calculation, which has been in force since 1975 and which has led in recent years to a proliferation of local tariff districts (more than 1000 throughout Italy), marked differences in the efficiency levels achieved by local distribution companies and differences in the tariffs themselves, often not justified by service costs, will be abandoned;
- tariffs will differentiate between distribution and sales services, in order to encourage competition;
- tariffs will reflect the service costs of the most efficient operators, with adequate levels of quality and safety. The system envisages incentives for improvements in efficiency by distribution companies, and the use of price caps to keep price increases lower on average than inflation, with the exception of the tariff element covering the costs of imported raw materials;
- the rates of return on capital invested by regulated companies will be in line with those of other European companies operating in the sector;
- user tariffs will be set by distributors, subject to constraints laid down by the AEEG, and each operator (private industrial group, under public control or municipal administration) will set a single countrywide tariff. After the municipal operators have been phased out the number of operators and tariffs will be reduced to about 300, with further cuts envisaged as a result of the concentration process currently under way in the sector;
- special tariffs, including seasonal ones, may be proposed, but any form of discrimination based on the kind of gas used and location of demand will be banned;
- lower "social" tariffs will be introduced for low-income households. These will also be applied to domestic heating needs. Access to the social tariffs will be tested by random checks.
- in addition to the tariffs, the new system also regulates – for the first time on a national basis – the payments for connection, activation and termination of the service. Until now these have been set at the municipal level
- in response to the growing use of methane in mountain areas, adjustments will be made to the gas metering system for services at altitudes of over 400 metres and a new parameter will be introduced to evaluate the calorific value of the gas, to create a closer match between tariffs and the calorific value of the gas distributed locally.

As a result of the reform, the tariffs for very low consumption levels (typically where gas is only used for cooking or for domestic water heaters, about 15% of local distribution) may well increase since they are at present lower, in some cases considerably so, than the costs of the service. The tariffs applied to consumption levels that are typical of condominium heating installations, the third sector and small and medium sized enterprises are likely on the other hand to fall. Overall, a slight decrease in average tariffs with respect to current levels is envisaged, although there will be marked adjustments

both upwards and downwards for individual customers and different local situations. The changes will be phased in gradually over three years.

The tariff for natural gas distribution over urban networks and criteria for the negotiation of administered sales prices

In 1999, as part of the overall reform of the gas tariff system, the AEEG carried out a preliminary analysis of the costs of the high-pressure service.

The AEEG noted that these costs were lower than the allowed cost in the current tariff and in view of the tariff reform and the unfavourable developments in international prices, decided that urgent measures were needed to reduce them.

The provision adopted in Decision 193/1999 reduced the part of the tariff for natural gas distributed through urban networks that is linked to the reimbursement of the costs of the transportation, storage, balancing and sale of the gas.

With reference to the administered sales prices of natural gas under the terms of the CIPE (Interministerial Committee for Economic Planning) provision of 1974, the provision also recommended to the interested parties that:

- the negotiation of supply conditions should result in natural gas prices that are in line with the costs of high-pressure transportation, storage, balancing and sales;
- the criteria for the indexation of the administered sales prices of natural gas should be brought into line with the tariff indexation criteria.

High-pressure transportation

The AEEG's Decision refers to the transportation of natural gas under high-pressure. This includes:

- the supply or sale of natural gas by the transportation company to the urban gas distribution service. In 1998 99% of the volume of gas in question was handled by Snam, and accounted for about 53% of Snam's natural gas sales;
- the supply or sale of natural gas to the industrial and power generation sector. In 1998 81% of this activity was handled by Snam, and accounted for 47% of the company's total sales;
- the wheeling of gas for third parties, a service provided only by Snam. In 1998 this activity accounted for about 10% of all the gas transported on the national high-pressure networks.

High-pressure transportation is carried out mainly through the use of type one, two and three pipelines with maximum operating pressures of over 5 bars. In 1998 99% of balancing and storage operations were controlled by Eni, which sold the services to its subsidiary Snam in return for a fee. The service costs analyses carried out by the AEEG were based on the financial statements of the Eni Group companies in 1998. In the case of Snam the evaluation of the costs incurred for the supply of natural gas under high-pressure was reasonably accurate as the operations carried out by Snam include nearly all the high-pressure transportation in Italy and the costs incurred include those relating to international transportation and balancing, services carried out mainly by Eni directly or through related companies.

The margin from high-pressure transportation and related activities in 1998 was 123.7 lire/m³. This value is the average of the margins for natural gas distributed through urban networks (188 lire/m³) and the margins for natural gas for other end uses (industrial consumption, electricity generation, other uses and wheeling). The costs allowed for the transportation, storage, balancing and sale of high-pressure gas, including commercial risk and a fair return on invested capital, were determined on an overall basis as information on the administrative and accounting unbundling of these operations was not available.

The costs were evaluated in such a way as to identify maximum costs, in order to reveal any differences between allowed and actual costs that would require urgent adjustment measures. The costs taken into consideration are those relating to the standard high-pressure gas supply service and exclude any extraordinary costs and costs relating to activities not directly connected with the gas service. The evaluation was carried out using the method adopted for the electricity service and showed an average cost for high-pressure activities, including a fair return on invested capital and commercial risk, that was lower than the average margin for these activities, as resulting from Snam figures.

In view of the difference between the estimated costs and the corresponding elements of the price of the natural gas provided downstream of the high-pressure service, which it calculated to be at least 12%, the AEEG reduced the allowed costs for this service by 22.6 lire/m³ in the tariff for natural gas distributed over urban networks. This reduction made it possible to reduce the tariffs for the distribution of natural gas by 23.7 lire/m³ with effect from 1 January 2000.

With regard to administered supply contracts, in the same Decision the AEEG pointed out to the interested parties that a significant difference existed between the average costs of the service and prices, and recommended that sales contracts should be re-negotiated in line with costs. Since the criteria to which administered prices must conform are indicative, the AEEG recommended that the interested parties should check existing contracts to ascertain that prices were in line with costs, taking into account the conditions applying to each agreement and supply contract.

Snam and other operators appealed against Decision 193/1999 before the Lombardy Regional Administrative Court but the provisions were applied both by distributors to their customers, and by Snam to distributors. Negotiations were also opened between user associations and Snam.

Periodic adjustment of the tariffs for gas distributed over urban networks

In Decision 52/1999 the AEEG introduced a new criterion for the indexation of the tariff element covering raw material costs.

This new criterion transfers to the tariff only the variation in the part of the cost that is influenced by trends in international oil markets and includes in the allowed cost for raw material an element corresponding to the purchase cost of gas abroad. The indicators selected for the indexation of this element are the prices of crudes, gasoil and fuel oils. For liquefied petroleum gas (LPG) tariffs the reference parameter is the commercial propane market. The AEEG also considered that variations in the chosen price indicators should be calculated on the basis of six-month averages: this provides relative stability for natural gas tariffs by attenuating and diluting over time the effects of price variations in oil products.

Increases subsequent to the entry into force of Decision 52/1999 reflect the marked rises in international oil prices starting from the early months of 1999 which, in conjunction with the depreciation of the external value of the Euro, translated into large increases in tariffs.

With effect from November 1999, January 2000 and March 2000 the Government applied a series of reductions in the tax rates for both natural gas and LPG distributed over networks.

These interventions and the tariff reductions, amounting to 62.2 lire/m³, decided by the AEEG between May 1998 and January 1999, produced increases of 20.0 lire/m³, tax included, in the average tariff for natural gas over the period March 1998 – March 2000.

The AEEG's use of the flexibility at its disposal during the launch phase of the tariff reform made it possible to contain the inflationary pressures produced by the unfavourable trend in the international prices of energy raw materials. As a consequence, the actual increase in gas tariffs was less marked than would have been the case, in the absence of interventions, under the previous system: the two revisions of the indexation mechanisms of the tariff for gas distributed on fixed networks – applied in Decisions 41/98 and 52/1999 – mitigated the effects of the transfer to final users of the increases in oil prices. This mitigating effect was reinforced, at the end of 1999, by the realignment of the margins for primary distribution that was introduced by Decision 193/1999.

QUALITY OF THE SERVICE AND PROTECTION OF CONSUMERS AND USERS

Activity carried out

Introduction

The AEEG's activities in relation to the quality of the service and the protection of consumers and users gathered pace in 1999, driven by the liberalisation of the electricity and gas sectors. In 1999 the second annual survey on the quality of the electricity and gas services was completed, and a summary of the results published. This survey not only monitors the quality of the service, it also provides a framework of information that is a necessary first step to the formulation by the AEEG of more incisive regulatory measures than envisaged by the previous system, which was based on Service Charters.

Uniform commercial quality standards were introduced during the year. These were obligatory for all operators in both the electricity and gas sectors, with automatic compensation for users when they were not respected. These will be considered as minimum, binding service standards.

For the electricity sector a uniform system for the measurement of service supply interruptions was completed and obligatory standards laid down for long unannounced interruptions. These are designed to bring about a rapid reduction in the existing gap in this respect between Italy and the other major European countries, and the marked regional differences within Italy itself. The AEEG's intervention is an important new departure since no form of regulation designed to reduce the number and duration of interruptions had previously existed; this essential element of service quality had been left to be freely defined by operators.

The evaluation of complaints, appeals and reports is an on-going and very important activity carried out by the AEEG both as a direct safeguard of the rights of consumers and users, and as part of the process of drawing up regulatory interventions in a context undergoing liberalisation. In this respect the evaluations carried out, in addition to interventions to interpret and where appropriate resolve disputes between users and operators, were the basis for guidelines concerning the conditions of supply of the electricity service, previously defined unilaterally by operators.

Finally, the AEEG completed the measures on billing transparency, as introduced for the natural gas service in 1999, by extending them to the electricity service.

Regulation and monitoring of the quality of the services

Surveying and monitoring the quality of the services

The results of the annual survey on the quality of the service for 1998 were published in the Reports on the quality of the electricity and gas services in the AEEG's *Quaderni*. The annual survey for 1999 was begun in the early months of 2000.

The aim of the quality of service survey is to ascertain whether the standards declared by operators in their Service Charters are being respected and to measure the quality levels achieved in 1998 against these standards. The annual survey on the quality of the service is based on data supplied by the operators under their own responsibility. The AEEG carried out two types of check on these data in 1999:

- checks on consistency, designed to assess the completeness of the data supplied and eliminate any data that are clearly unreliable;
- technical checks through visits and inspections of operators, to assess the reliability of the data provided and operators' arrangements for recording quality data.

Technical checks on the quality of the service

The technical checks on the quality of the service are carried out on a sample basis. In 1999 11 such checks were carried out on electricity providers (5 Enel zones and 6 local electricity companies) and 8 on gas suppliers (1 Italgas S.p.A. zone, 5 predominantly public companies and 2 private companies).

Operators were selected for inspection on the basis of size, data that diverged significantly from the averages for the sector, the failure to declare certain data or the presence of anomalous values. During selection the uniformity of national distribution and the representativeness of the different types of operator in the sector (Enel zones, Italgas zones, municipal or public companies, private companies) were taken into consideration.

These checks became necessary because the data provided by the operators during quality surveys revealed discrepancies both in the way the standards were defined, and in the way the data are collected. Partly as a result of clarifications provided by the AEEG on the definitions adopted, the data produced for the 1997 and 1998 surveys were more uniform.

For the electricity service the data will not become truly homogeneous until 2000, with the entry into force of the provisions for the regulation of commercial quality and service continuity laid down by the AEEG in 1999. Similarly, homogeneous data will become available for the gas service with the implementation of the AEEG's guidelines on commercial quality and on the safety and continuity of the service.

Overall and Guaranteed Quality Standards

Law 481/95 entrusts the AEEG with the task of issuing guidelines laying down the technical, economic and legal conditions for the production and supply of the electricity and gas services. It defines the guaranteed and overall service standards and also decides on cases where operators should automatically compensate users when the quality of the service provided is lower than the standards set by the AEEG (Art. 2 (12) of Law 481/95). In June 1999 the AEEG published a consultation document containing *Regulations for specific and general levels for commercial quality factors for the distribution and sale of electricity and gas*. On the basis of the comments and observations produced in response to this document, the AEEG drew up two sets of guidelines on the regulations for overall and guaranteed standards for the distribution and sale of electricity and natural gas distributed over urban networks.

Electricity

With Decision 201 of 28 December 1999 the AEEG issued the guidelines on commercial quality for the electricity sector. These guidelines define six quality indicators subject to specific levels and nine quality indicators subject to general levels.

The criterion followed in selecting the indicators was that of balancing the regulations between the two objectives of protecting users and improving quality. The user protection objective requires the definition of overall standards that are subject to automatic refund, while the quality improvement objective can be pursued better by setting guaranteed service standards, with the added impetus provided by the publication of comparative data. To take into account the observations submitted by the interested parties during the consultation process, some modifications were introduced to the guidelines. The most significant concerned:

- the inclusion of punctuality in keeping appointments at a specific level, as requested by all the consumer associations;
- less stringent requirements for the recording of quality parameters, especially with regard to appointments, while still respecting monitoring requirements, as requested by all the operators;
- gradual implementation of quality levels.

The AEEG considered that when the regulations governing overall and guaranteed standards are first implemented they should only apply to operators with more than 5,000 users. Such operators are required to respect overall service standards with effect from 1 July 2000 and guaranteed standards from 1 January 2001.

The service standards set by the AEEG in Decision 201/1999 are equal throughout the country and obligatory for all operators. Operators can themselves set overall and guaranteed service standards, where appropriate subject to agreement with consumers' associations, only if these standards are higher than those defined by Decision 201/1999 or refer to services not envisaged by this Decision. In Decision 201/1999 the AEEG also introduced automatic compensation in the case of failure to respect overall standards, the aim being to dismantle the refund mechanism currently envisaged by the Service Charter, which has proved to be ineffective.

Gas

With Decision 47 of 2 March 2000 the AEEG issued guidelines on commercial quality for the gas sector. These guidelines set out six quality indicators that are subject to specific levels and nine that are subject to general levels. As with the electricity sector, the criterion followed in the choice of quality indicators was that of balancing the regulatory system between the two objectives of protecting users and improving quality, in the first case by setting specific levels that are subject to automatic compensation, and in the second through the publication of comparative data on guaranteed service standards. The guidelines were amended with respect to the consultation documents, to take into account the observations submitted by the interested parties. The most significant of these concerned:

- the application of the guidelines to low-pressure users and their subdivision on the basis of the metering unit installed;
- the inclusion for all low-pressure users of punctuality in keeping appointments as one of the specific levels, as requested by all the consumers' associations;
- less stringent requirements for the recording of quality parameters, especially with regard to appointments, while still respecting monitoring requirements, as requested by all the operators;
- gradual implementation of the quality levels.

The AEEG considered that when the regulations governing overall and guaranteed service standards are first implemented they should only apply to operators with more than 5,000 users. Municipalities where the gas service is being introduced were excluded. Operators with more than 5,000 users are required to respect overall and guaranteed standards with effect from 1 January 2001.

The service standards set by the AEEG in Decision 47/2000 are equal throughout the country and obligatory for all operators. Operators can themselves set overall and guaranteed standards, where appropriate subject to agreement with the consumers' associations, only if these standards are higher than the standards defined by Decision 47/2000 or refer to services not covered by this Decision. In Decision 47/2000 the AEEG also introduced automatic compensation in cases of failure to respect overall service standards, extending to all operators the automatic refund mechanism adopted voluntarily by Italgas S.p.A. and a few other operators. This mechanism is more effective than reimbursement in response to claims by users, as envisaged by the Service Charters.

Continuity of the electricity distribution service: measurement and regulation

The continuity of the electricity distribution service is defined as the absence of interruptions in the supply of electricity to users. It is not possible, for technical reasons, to guarantee the absolute absence of interruptions. The objective of regulation is therefore to protect users and encourage operators to reduce interruptions. Service continuity is the most significant of the various quality factors in the electricity sector from the point of view of its importance to users, and the amount of investment required to reduce interruptions. The AEEG views service continuity as a priority requirement with respect to other technical factors of service quality, which nonetheless are of considerable importance for certain categories of users. These include voltage stability and variations such as dips, harmonics, flickers or phase asymmetry.

In 1999 the AEEG issued two provisions on the measurement and regulation of the continuity of the electricity distribution service:

- Decision 128 of 1 September 1999 regarding service continuity indicators and the requirements for recording interruptions in electricity distribution; and
- Decision 202 of 28 December 1999, regarding the regulation of guaranteed standards with regard to unplanned interruptions in the distribution service.

Measurement of outages.

Decision 128/1999 sets out a uniform system of service continuity indicators. This system is an essential first step to the introduction of a regulatory framework for service continuity, in view of the differences between the methods initially used by operators. The provision, issued after full consultation with all the interested parties, covers the following aspects:

- the classification of outages in the electricity distribution service, distinguishing between interruptions with advance notice (less annoying for users) and unplanned interruptions; the latter are divided into long (lasting more than 3 minutes), short (lasting between one second and three minutes) and transient (lasting less than one second) unplanned interruptions;
- the definition of geographical areas based on the population density in each municipality: high density (more than 50,000 inhabitants), average density (between 5,000 and 50,000 inhabitants), low density (5,000 or less inhabitants);
- the classification of outages by cause and origin in order to attribute the appropriate degree of responsibility to distributors. Three categories of causes of interruptions were defined (*force majeure*, external and all other causes), and the categories of events for which responsibility cannot be attributed to the operator were specified. With regard to the origin of the interruptions four network sections are specified (national transmission network, and high- medium- and low-voltage distribution networks) in order to separate the distributors' responsibilities from those of the transmission network operators and, within the distribution networks, produce a neutral indicator with respect to the different network characteristics (some operators run primary distribution directly on high-voltage networks, others only medium- and low-voltage distribution);
- the definition of uniform criteria to estimate the number of users involved in each unplanned interruption to make the data elaborated by the different operators more easily comparable;
- the introduction of requirements to record outages, based on the widest possible use of systems that automatically record the instant the interruption begins (through remote control systems or other suitable automatic systems), backed up by manual recording;
- the definition of continuity indicators relating to both the number and duration of outages, divided by type of user, population density, cause and origin of the interruption and province, in the case of operators providing the service in more than one province.

The registration requirements envisaged by Decision 128/1999 were phased in gradually to take into account both the different types of outage (with priority for long interruptions with and without advance notice), and the greater difficulties experienced by smaller operators in installing suitable automatic recording systems. In the first months of 2000 the AEEG also examined requests from

operators for a more precise classification of the areas of high population density, separating peripheral areas (low or medium population density) from central areas (high density).

Regulation of service continuity

The introduction of a uniform system of continuity indicators and obligations to record outages enabled the AEEG to present its proposals on the *Regulation of the continuity of the electricity distribution service* in a consultation document published in November 1999. With regard to general quality levels relating to long unplanned interruptions, the new regulations were introduced through Decision 202/1999, which incorporated where possible the observations and suggestions that emerged from the consultation process. The consultation document started from an analysis of the existing continuity levels, including international comparisons, and set out three objectives and some general criteria. The objectives were:

- to bring continuity levels in Italy rapidly into line with the best national average levels currently attained in other European countries;
- to reduce the gaps between the different regions, with equal concentrations of users, without worsening the situation in those regions currently achieving the best continuity levels;
- to protect users through the introduction of automatic collective or individual (in areas where it is technically possible to measure individual continuity) refunds. Collective compensation would be in line with the average continuity recorded in any one geographical area and applied to all users in that area, in proportion to their consumption.

The consultation document also underscores the additional investments that will be required over a period of several years to achieve these continuity improvements. The regulatory proposals were also intended to prompt such investment, which would be funded partly by users, partly by companies and partly through other sources of funding such as the European Structural Funds.

Decision 202/1999 defines the regulation of service continuity through guaranteed service standards for long unplanned interruptions (hereafter called guaranteed continuity standards). In order to take into account the considerable initial differences throughout the country, Decision 202/1999 defines the geographical zones to which the guaranteed continuity standards refer. There are about 300 such zones, sub-divided by province and areas of high, medium and low population density (as defined in Decision 128/1999).

In 2000 each area will be allocated a performance improvement target starting from the average level recorded in the same area in 1998 and 1999. The improvement target represents the minimum improvement required by the AEEG in each zone. The improvement rates are based on the initial continuity level and degree of concentration in the different areas. Overall, the average improvement target (for all areas) is 10% per year; areas experiencing more outages are expected to improve by up to 16% a year. These improvements must not result in changes to the tariff. Operators who succeed in improving by more than the required rate can recoup the higher costs sustained. Conversely, in areas that fail to meet the improvement target, companies will have to pay a penalty. An equalisation fund will guarantee that the national single tariff is maintained; this fund will be financed in part from the penalties paid by operators failing to meet the target, and in part through a corrective mechanism applied to the price-cap method of tariff adjustment (parameter Q, introduced pursuant to Art 2.19 of Law 481/95).

The performance target system is intended to spur operators to improve continuity levels, bringing them up to the national benchmark levels based by the AEEG on European standards: 30 minutes of interruptions overall per user per year in the large cities (high density); 45 minutes in medium sized towns (medium density); and 60 minutes in rural areas (low density). The AEEG has envisaged a flexible system to allow for the fact that in some parts of the country these European levels have already been achieved. In areas with higher standards operators can opt for a recognition of their higher costs only if they guarantee automatic refund to users if current continuity levels are not maintained over time. This compensation will be collective.

The aim of bringing standards up to the national benchmark levels is to assert the principle that the single national tariff should be accompanied by uniform, albeit differentiated, quality levels throughout the country.

The protection of users and consumers

The evaluation of complaints, appeals and reports

In the period from May 1999 to April 2000 the AEEG received 308 communications from consumers and their associations, of which 69% were complaints, 24% requests for information, and 7% reports on the electricity and gas services. As in the previous year, most of the communications (68%) regarded the electricity service. Of these, 72% were complaints, 22% requests for information and 6% reports. With regard to gas, 63% of the communications contained complaints, 27% requests for information and 10% reports. For both the electricity and gas sectors, the issues most commonly brought to the AEEG's attention were connections, billing and contractual problems. Complaints and reports concerning the respect of the natural gas tariff regulations led to 46 interventions by the AEEG in 1999, some of which involving tariff reductions that benefited 62,000 users.

Interventions to protect users

Connection payments for the electricity service

Connection payments for the electricity service are regulated by CIP provision 42/86 containing *Rules concerning payments for connection to the electricity distribution networks*. This lays down that the payments should be set in relation to the user's reserved capacity and the distance from the MV/LV transformer station. For users in special categories⁵ and the repositioning of electricity installations, the provision envisages that users should pay 70% of the actual documented expenditure sustained by the operator to connect them to the distribution network. The CIP provision also covers power increases for low- or medium-voltage users already connected to the network and lays down set fees for each additional kW of power requested and a further set fee that is independent of this increased power. Complaints received by the AEEG revealed that from May 1987 onwards Enel had been charging special category users requesting increased power a new connection payment instead of the set and per kW fees actually envisaged, on the basis of their own interpretation of CIP provision 42/86.

The AEEG noted that over time this conduct, which did not appear to be justified, had affected a considerable number of users and in Decision 133/1999 reiterated the measures contained in CIP

⁵ Installations not permanently manned, situated outside homes; constructions that are not accessible by roads suitable for vehicle traffic or separated from the distribution plants by sea, lake or lagoon; illuminated and advertising signs; plants for the illumination of monuments or similar; single constructions not permanently inhabited or not resulting as the owner's residence, situated more than 2,000 metres from the relevant MV/LV station

provision 42/86. It also laid down that the special category users in question could ask the electricity distribution and sales operator to check on the sums charged and return any undue payments, plus the legal interest on them.

Tariffs (T4) for industrial and craft uses

The Ministry of Industry decree of August 1994 on the adjustment of the method for setting and reviewing tariffs for gas distributed over urban networks introduced a special tariff band, T4, for small industrial and craft firms with annual consumption of between 100,000 and 200,000 m³. This tariff is divided into two levels. The only conditions for access to the tariff are user category, consumption levels and use, as described above. In November 1994, after the introduction of tariff T4, an agreement was drawn up between Confindustria, ANCI (the National Association of Municipalities) and associations of operators distributing gas over the urban networks. This agreement laid down the criteria for access to and revocation of the tariff for "new users or increased consumption by existing users" and "supplies to existing users with consumption of more than 100,000 cubic metres per year". In the first case the agreement envisages that access to the tariff should be based on an application submitted by the company in question, giving details of the potential of their plants to reach the T4 consumption threshold; in the second case the conditions for the revocation or confirmation of the tariff for companies already in the relevant consumption band are laid down. In 1998 the AEEG received reports and complaints concerning the way tariff T4 was being applied by some operators. Users complained that although they met the conditions envisaged by the Ministry of Industry decree, operators were only recognising tariff T4 status if firms submitted specific applications, and were only applying the tariff with effect from the date of these applications, rather than from the time the relevant conditions had been met. The AEEG reiterated the provisions contained in the decree and clarified the reasons for which certain conduct by the operators could not be considered to be in keeping with the decree.

In Decision 134 of 18 August 1999 the AEEG laid down that companies meeting the conditions set out in the Ministry of Industry decree and who had not been able to use the new tariff with effect from August 1994, were entitled to request operators to apply tariff T4 from that date or from the time they first met the conditions set out in the decree.

The reform of the conditions for the distribution and sale of electricity to captive users.

The background

Over the three years it has been in operation the AEEG has received numerous complaints and reports from consumers and associations pointing out instances where the contractual relationship for the supply of electricity was poorly balanced between customers and operators. Before the AEEG's intervention these relations were not specifically regulated and were governed solely by the contracts drawn up unilaterally by operators.

In addition to setting out the content of contracts, operators also developed numerous procedures or practices governing their relations with their customers. As these practices were not codified in general contractual clauses, they were totally at operators' discretion. The AEEG considers that this situation could place customers at a real disadvantage.

The AEEG's intervention sets out the minimum criteria to safeguard customers' interests, leaving operators free to improve these conditions. The regulated conditions are to be considered as customers'

entitlement, in return for the tariffs they pay to operators: the AEEG's aim was to introduce standardised countrywide customer protection measures corresponding with the tariff based on uniform nationwide criteria. The AEEG decided that the provision did not apply to high-voltage customers or to energy used for public lighting, since these users have a stronger negotiating position than captive customers, and specific usage requirements that require autonomous, direct negotiation. Specific rules for low-income customers will also be issued.

Objective of the Reform

The AEEG presented its proposals for the regulation of electricity supply conditions in November 1999 in a consultation paper on *Conditions for the sale of electricity to captive customers*. Consumers' and users' associations welcomed the new proposals, which create a legislative basis for the protection of customers, something which previously was non-existent or unclear. Operators expressed concern over the management problems that the new regulatory framework would create, but agreed with the objectives of the AEEG's initiative.

At the end of the consultation process Decision 200 of 31 December 1999 was published. This regulates some conditions considered to be of primary importance for the protection of the captive customers of the electricity service. The new features introduced by the Decision include the following supply conditions for captive customers:

Frequency of meter readings: operators must read meters at least once a year. However, customers must be able to check their meter readings themselves and notify the result using systems drawn up by the service provider. Providers who do not provide self-reading systems must guarantee two readings in each twelve-month period

Frequency and arrangements for billing and payment: operators must bill domestic customers and non-domestic customers with reserved power no higher than 30 kW every two months; they must bill medium-voltage customers and customers with power of more than 30 kW on a monthly basis. Operators may issue estimated bills using calculation methods that keep the difference between presumed and actual consumption to a minimum. Customers have 20 days from the date of issue to pay their bills. At least one method of payment free of charge must be made available to customers.

Interest in cases of delayed or non-payment of bills: in the case of delayed payment customers must pay the official discount rate, plus a further 3.5%. However, domestic customers who have paid their bills on time for at least two years only pay the legal interest rate (currently 2.5%) for the first ten days of the delay.

Conditions and timing of disconnections: operators cannot suspend supplies in certain specific situations: when the energy is used for therapeutic equipment; when the customer's debt is less than or equal to the deposit paid; on public holidays and the eve of holidays; in the case of multi-utility providers, when the non- or delayed payment is for a service other than electricity; when the time limit for payment has expired but not the additional period allowed by the operator to avoid disconnection; when the customer has paid but the operator is not aware that the payment has been made; when the contract envisages general conditions that are not set out in detail; when disputes arise as a result of meter failings and consumption is being recalculated; when the contract has not been signed.

Reconstruction of consumption: in the case of meter failings the provider can reconstruct the client's consumption starting from the exact time of the fault, if this can be identified; if not, the reconstruction

can only cover the last twelve months of consumption, calculated from the day the fault was discovered. Customers may challenge the results of the reconstruction.

Payment by instalments of sums owed by customers: in the case of particularly high round-up payments, customers may pay by instalments as long as the debt amounts to more than 50,000 lire. Customers must pay interest at the official discount rate on debts paid in instalments.

Deposit: when the contract is drawn up operators may ask customers to pay a deposit or similar guarantee. The sum paid is interest-bearing and must be repaid at the end of the contract, together with any interest due, calculated at the legal interest rate. Operators may not demand advance payments on consumption. Customers may not be disconnected for debts that are less than or equal to the deposit paid. Domestic customers who have arranged to pay their bills by bank or postal standing order, or who pay by credit card, are exempt from paying the deposit.

Procedures for complaints: operators must inform customers of the procedures for complaints, and provide ready-printed forms to simplify the transmission of complaints. These procedures must take into account the requirements of disabled and elderly customers.

Billing Transparency

The AEEG's interventions to ensure transparent billing procedures for gas and electricity consumption include Decision 42 of 14 April 1999, for natural gas distributed over urban networks, and Decision 55 of 16 March 2000, for the distribution and sale of electricity.

Natural Gas Consumption

With Decision 42/1999 containing *Guidelines for the transparency of bills for the consumption of gas distributed over urban networks pursuant to Art. 2 (12) of Law 481/95*, the AEEG set itself the objective of rationalising and simplifying the existing system by imposing minimum, common and binding requirements for all operators, regarding both the content and form of bills.

Operators were given 180 days from publication of the Decision to bring themselves into line. To allow for adjustments to IT systems, operators were entitled to apply for an extension of up to 90 days. 307 operators applied for the extension, out of a total of about 800. The final deadline for the new transparent billing procedures expired in the second week of February 2000.

This intervention enables the almost 15 million users of the gas service to receive a simple, transparent and complete bill, regardless of their location and supplier.

Electricity consumption

With Decision 55/2000 the AEEG extended its provisions on billing transparency to the electricity service. The aim of the Guidelines for electricity bills is to supplement the existing legislative provisions and to set out additional, obligatory transparency criteria for electricity distributors and sellers.

The basic billing requirements cover all captive customers, with the exception of those purchasing high-voltage electricity and those using energy for public lighting purposes. These two categories have a strong contractual negotiating position and supply requirements that are more suited to individual billing arrangements. The AEEG's Guidelines require operators to specify clearly the details of the

supply relationship to which the bill relates. They do not, however, touch on the content of this relationship, which is already regulated by Decisions 200, 201, 202 of 28 December 1999 and Decision 204 of 29 December 1999. Operators are free to provide additional information over and above the obligatory information and to choose the format they consider to be most suitable to convey this information.

The objectives of the AEEG's intervention were notified to operators and consumers' associations through the consultation paper on Conditions for the Sale of Electricity to Captive Customers, published in November 1999.

The key points of the provision are set out below. Operators have 180 days from the date of publication in the Official Gazette to comply with the requirements of the provision.

SUMMARY OF THE MINIMUM REQUIREMENTS FOR THE TRANSPARENCY OF ELECTRICITY BILLS

BILLING OF CONSUMPTION

<i>Type of Supply</i>	User-category customer belongs to or tariff option chosen and tariff applied (basic or special) Reserved capacity if applicable
<i>Reference period of bill</i>	Last two readings for round-up bill Period of reference for deposit Date of issue and expiry date
<i>Payments due in relation to tariff components</i>	Unit values of the sum of the fees in lire /kWh, lire/kW and lire/customer/month Overall values given by the sum of the fees in lire/kWh, lire/kW and lire/customer/month multiplied respectively by consumption, reserved capacity and the period of reference
<i>Automatic refunds and compensation</i>	The following should be shown for customers entitled to receive them: <ul style="list-style-type: none">- refunds resulting from failure to respect constraints on tariff revenue (V1)- automatic compensation for failure to respect specific commercial quality levels- automatic compensation for failure to respect national continuity benchmark levels

- payments due for general system costs

Payments due for taxes

Tax rates must be shown in addition to the total

Separation of billing for consumption from billing for other costs

Interest on arrears, reminders, deposits or other costs should be separate from the calculation of consumption and taxes

For interest on arrears, the rate of interest and number of days to which it applies should be shown

For other services (repairs, meter determinations, repositioning of metering devices), customers may request a separate bill

Payments relating to previous bills

The existence of unpaid bills should be indicated

COMPULSORY INFORMATION FOR CUSTOMERS

Information on methods of payment

Method of payment to be shown

Telephone number for information on bills and payment

Minimum number of days between last due date and disconnection of supply

Other general information for customers

Telephone number for notification of faults

Specific and general quality levels set by AEEG (at least once a year)

Information on whether selected tariff option is the best one available with respect to consumption profile (at least once a year)

Comparative information on electricity consumption (at least one a year)

Information for groups

Arrangements for notifying payments made after last due date (for customers in arrears)

Procedures and cost of suspension of supply (for customers in arrears)

For entitled customers the time and arrangements for payment by instalment of any sums due must be indicated

The Guidelines focused closely on the arrangements for setting out the tariff, in order to find the best possible balance between completeness of information and simplification.

The final price paid by customers choosing a tariff option for the distribution and sale of electricity is the sum of different elements, each of which covers specific costs (transportation of the electricity on the transmission networks, distribution and sale, purchase of the electricity). These components are expressed in lire/client/month, lire/kW and lire/kWh. In addition to the elements making up the tariff option, other components to cover costs incurred in the general interest and the general costs of the electricity system (expressed both in lire/client/month and lire/kWh) are applied to each category of user. Finally, up to 31 December 2001, each tariff option offered to customers belonging to user categories other than low-voltage domestic users will include tariff components (expressed in lire/client/month and lire/kWh) designed to ensure a gradual transition from the old to the new tariff system. As a long list of items and prices would be required to set out all of these elements in the bill, it was decided to simplify the information by adding the elements relating to costs sustained in the general interest, the general costs of the electricity system and the gradual transition, to the components of the tariff option expressed in lire/client/month and lire/kWh under the terms of AEEG Decision 204/1999.

Transparency and completeness of information are also guaranteed by two specific measures. The first envisages that the operator must supply a complete break-down of the cost elements of the tariff option each time the client so requests. The second envisages that at least once a year the bill must show a detailed breakdown of costs sustained in the general interest, the electricity system and the gradual transition, with the relevant terms and total amounts paid by the customer in the period under reference. Other innovations were introduced to enable customers to evaluate their consumption profiles and the opportunities provided by the new tariff system. For this purpose, at least once a year bills must provide information that enables customers to assess their average daily consumption trends. At the end of each year operators must also indicate in the bill whether the customer's chosen tariff option is the one providing them with the greatest savings in relation to their consumption profile.

INSTITUTIONAL RELATIONS

Relations with the government and parliament

In June 1999, as part of the implementation of Art 3.7 of Legislative Decree 79/1999 concerning the liberalisation of the electricity market, the AEEG sent its comments and observations to the Ministry of Industry on the draft ministerial decree for the definition of the national electricity transmission network.

The AEEG cooperated very closely with the economic ministries. In the run-up to the sale of the first tranche of Enel, and to provide information for potential investors, the AEEG drew up a note (*The regulation of electricity tariffs for the liberalisation of the market*, of 4 August 1999) for the Treasury Minister and the Industry Minister (subsequently made available to all operators) illustrating the guidelines for tariff reform and the expected repercussions on the future profitability of electricity companies and of Enel in particular. The information provided by the AEEG was also included in Enel's prospectus.

In September 1999 the AEEG was called to attend a hearing of the Senate's Industry, Commerce and Tourism Committee during an inquiry into the economic and social effects of the increases in international oil prices. The AEEG submitted a memorandum illustrating factors such as the indexation mechanisms it had introduced for electricity and gas tariffs.

At the end of September 1999, as envisaged by Art. 3 (11) of Legislative Decree 79/1999, the AEEG sent the Ministry of Industry its proposals on the general costs of the electricity system. These proposals were supplemented by a note submitted in December. That same month the AEEG sent the Government and Parliament its observations and proposals for the implementation of Directive 98/30/EC on the internal natural gas market.

In January 2000 the AEEG appeared before the Constitutional Affairs Committee of the Chamber of Deputies as part of the inquiry on independent regulatory authorities, and provided the Committee with a memorandum on its activities and organisational structure.

The AEEG also appeared before the Productive Activities Committee of the Chamber of Deputies and the Senate's Industry, Commerce and Tourism Committee in March 2000 before they expressed their opinion on the draft Legislative Decree transposing European Directive 98/30/EC. The AEEG provided both Committees with a memorandum containing observations and proposals for amendments to the decree. The AEEG also provided additional information on the international comparisons of the prices and tariffs of methane gas. In April 2000 the AEEG presented the Government with a document containing its observations on the draft Legislative Decree (Decision 72/2000). At the request of the Senate's Territory, Environment and Cultural Heritage Committee, which was examining the framework law on exposure to electro-magnetic fields, in April 2000 the AEEG submitted a memorandum on the protection of health from the effects of electro-magnetic pollution and the expected impact on electricity tariffs of the application of the new exposure limits envisaged by the bill.

During the year the AEEG also worked with the Department for Cohesion and Development Policies at the Treasury Ministry on a set of electricity service quality and infrastructure indicators to be used in the allocation of European Structural Funds for 2000-2006 for the Southern Development Programme.

At the request of the Ministry of Industry, the AEEG appointed a representative to the Ministry's Monitoring Unit for the oil sector. The Unit provides technical support on price developments for oil products and related issues and carries out market structure analyses.

The AEEG also continued its regular working contacts with the National Council for Consumers and Users and participated in the first Conference of Consumers, which took place in Milan on 13-14 December 1999.

Relations with other public institutions

With the expansion of regulatory activity in Italy the AEEG's relations with other institutions and public administrations intensified. A joint seminar with the Antitrust Authority on Problems regarding the Development of the Natural Gas Market in Italy and Directive 98/30/EC, which took place in Rome in March 1999, is worth noting. This seminar provided an opportunity to review the prospects and scenarios for the opening of the Italian gas market in the run-up to implementation. Preparations were also made for the organisation of technical seminars in fields of mutual interest.

Joint initiatives were launched with the Authority for Telecommunications to establish a common system, based on ability to pay rather than consumption, for the provision of special terms for access to services by disadvantaged categories of users.

The AEEG is a member of the working group on the measurement of administrative activity set up at the national Council for the Economy and Labour (CNEL), where it has also taken part in seminars dedicated to the implementation of EU policies.

In 1998 the AEEG signed a protocol of agreement with the National Body for New Technologies, Energy and the Environment (ENEA) which envisages the exchange of information and flexible collaboration on subjects of common interest such as the development of legislation, processes and plants in the energy field. In September 1999 the first agreement implementing the protocol was finalised. This envisages a two-year collaboration designed to provide the AEEG with two forms of operational support for its technical controls and inspections: a unit within the AEEG providing technical expertise, and access to the technical structures of the ENEA for laboratory or *in situ* analyses.

The AEEG also worked closely with ISTAT (National Statistics Institute) in the exchange of statistical information, the management of joint initiatives and the participation of AEEG officials in working groups within the Institute. One of the first joint initiatives was the inclusion of questions on industrial users' energy consumption in the industry survey questionnaire. Several multiple-choice questions on domestic consumers' satisfaction with electricity and gas services were included in the Household Survey.

This survey is based on a very wide, representative sample (about 20,000 household) of users. The AEEG has drawn up a special agreement with ISTAT whereby the Institute undertakes to carry out the survey and provides the AEEG with suitably adjusted reference data, including the principal socio-demographic characteristics of the households interviewed and data to enable Year-on-Year comparisons. The main results of the first survey, which referred to 1998, were presented in a seminar organised jointly by ISTAT and the AEEG in May 1999. A focus group on energy has been set up for the ISTAT initiative, with AEEG support; this provides a channel through which users of statistical information can compare their information needs and submit suggestions. The participation of representatives of the AEEG in the Industry Quality Unit, which also operates within the ISTAT

structure, serves a similar purpose. Finally, officers of the AEEG have contributed to the Report on the Economic and Social Situation of the Country, on aspects concerning the liberalisation of the energy markets.

International relations

With the liberalisation of the energy markets, the international institutions that follow the economic and institutional development of member countries have begun to include the monitoring of regulatory activities in their coverage. The officers of the AEEG have contributed to this process by taking part in meetings with delegations from these institutions and compiling documentary material for the International Monetary Fund's Article IV Consultation for Italy (2000), and the OECD's Annual Review of Italy (1999-2000) and Review of Regulatory Reform in Italy. The AEEG also worked closely with the European Commission and the other European energy regulatory bodies.

Relations with the European Commission

The creation of a single European market for electricity and gas through the two Directives promoted by the European Commission has required and encouraged co-operation, including bilateral, between AEEG and Commission officials. There have been frequent contacts, meetings and exchanges of information over the last year on subjects of common interest and on specific problems, especially with the Energy and Transport Directorate, the Competition Directorate and the Directorate for Health and Consumer Protection. These forms of collaboration have made it possible to monitor the liberalisation process in the various member states and have encouraged concerted action and initiatives for the promotion of competition in the electricity and gas sectors.

During the year the AEEG also met with the European commissioners for Energy and Transport, Loyola de Palacio, and Competition, Mario Monti. The main topics covered on these occasions were the liberalisation of the electricity and gas sectors, the treatment of stranded costs resulting from liberalisation, reciprocity between member states and third countries, take or pay contracts in the gas sector, and trans-national groupings between firms in the electricity and gas sectors.

Regulators' forum

Between April 1999 and April 2000 the AEEG took part in three meetings of the European Electricity Regulatory Forum that took place in Florence in May 1999, November 1999 and March 2000. The AEEG also took part in the first European Gas Regulatory Forum, which took place in Madrid from 30 September to 1 October 1999.

Monitoring groups

The AEEG took part as an observer in the second meeting of the informal monitoring group set up by the European Commission to follow the implementation in member states of the Directive on common rules for the internal natural gas market. The group was set up in 1998 to develop a common interpretation of the provisions of the Directive and facilitate the interpretation of the most controversial aspects.

The key subjects for discussion were public service obligations such as access to storage, accounting unbundling, network access tariffs, cogeneration, authorisation to build and use new gas pipelines, take or pay contracts, network interoperability, reciprocity and harmonisation measures.

International cooperation with independent regulators

Institutional Relations with CNE and ERSE

The programme for co-operation and the exchange of information that was initiated in 1997 by the AEEG and the Spanish and Portuguese regulatory Authorities (respectively, CNE – Comisión Nacional de Energía and ERSE – Entidade Reguladora do Sistema Eléctrico) was consolidated over the year. Representatives of the three regulatory bodies, meeting in Rome on 7 October 1999, presented progress reports on the implementation of European Directive 92/96/EC in their countries and on current or planned regulatory interventions, and discussed subjects of common interest (international wheeling, the definition and recovery of stranded costs, reciprocity and the organisation of the wholesale electricity market). The results achieved during the year by the joint working groups set up at the beginning of 1999 to examine specific technical issues were also presented and assessed: the quality of the electricity service, ancillary services, tax and the environment.

Seminar on the criteria for electricity tariffs and pricing

Within the framework of international co-operation between Italy, Spain and Portugal the need also emerged to extend the discussion on the development of the European electricity markets to other countries, with particular reference to the role played by regulators and the issue of tariff regulation in a context of liberalisation and integration. In October 1999 the AEEG, in agreement with CNE and ERSE, organised a seminar in Rome on Criteria for Electricity Tariffs and Pricing. This was attended by representatives of 18 European regulatory bodies, along with representatives from Eastern European countries and an observer from the European Commission. Participants at the seminar illustrated their countries' regulatory experience, with particular attention to forms of market organisation, measures to promote competition and methods of tariff regulation for the transmission and distribution sector and for the captive market.

The creation of the Council of European Energy Regulators

In 1999 the AEEG, again working closely with the Spanish and Portuguese regulators, promoted an initiative to extend international co-operation activities to other independent European regulators. At the first meeting in London in January 2000, which was attended by representatives of 10 regulatory bodies, the objectives and arrangements for the initiative were set out in a document and an initial working programme was drawn up.

In March 2000 the memorandum of intent setting up the Council of European Energy Regulators was signed in Brussels by the regulatory bodies of Belgium, Finland, England, Ireland, Northern Ireland, Italy, Norway, the Netherlands, Portugal, Spain and Sweden.

Consultation activity

Consultation with interested parties

Ever since it was set up the AEEG has operated in a way that is designed to guarantee the maximum transparency in any decision-making processes that affect other parties, and has directly involved the

interested parties and their associations in its consultation procedures. These envisage the publication of regulatory proposals, generally including the outline provision, the gathering of written observations and, in cases of particular significance, special hearings with the parties involved.

Between April 1999 and April 2000 the AEEG published ten consultation documents and gathered observations from all the interested parties. The AEEG held special hearings in its Milan and Rome offices for five particularly important provisions – the regulation of commercial quality in the electricity and natural gas sectors, the continuity of the electricity service, the conditions and tariffs for the supply of electricity to captive customers and the tariff-setting criteria for the distribution and sale of the gas distributed over urban networks. In Rome on 30 June and 1 July 1999 the AEEG held its periodic hearings with associations involved in the sector, as envisaged by its Regulations, during which it presented an account of its activity between April 1998 and April 1999, and on-going programmes.

Changes to the consultation procedures

With Decision 56 of May 1999 the AEEG embarked on a review of its Regulations for periodic hearings with associations of consumers and users, environmental associations, trade unions and employers associations and for surveys on user satisfaction and the efficiency of the service, in accordance with Decision 44 of May 1997.

After an initial experimentation period the need was felt to review the criteria for evaluating the degree to which the different associations are representative of their members subsequent to the implementation of Law 281 of 30 July 1998 on the rights of consumers and users, and the new procedures for inclusion on the list of consumers' associations held by the Ministry of Industry, pursuant to Ministerial Decree 20 of 19 January 1999.

The most important changes to the Regulations for periodic hearings can be summed up as follows:

- to be accredited, associations of consumers and users must certify that they are included in the list held by the Ministry of Industry;
- the associations may ask for additional items to be included in the agenda up to ten days before the date of the hearing;
- application procedures for accreditation with the AEEG will take into account the new simplified bureaucratic procedures introduced by Law 127 of May 1997 and Presidential Decree 403 of 20 October 1998.

The provisions regarding the special hearings that the AEEG can convene to gather observations on consultation documents or draft provisions before decisions of general interest are approved, remain unchanged.

Monitoring activity

Between May 1999 and April 2000 the AEEG continued with its programme of non-restrictive on-site technical checks and inspections, as envisaged in Art 2.22 of Law 481/95. To meet the AEEG's requirements, the inspection programme changed with respect to the previous year: monitoring the quality of the service in both the electricity and gas sectors now predominates and the first controls arising from the requirements and responsibilities conferred on the AEEG by Legislative Decree

79/1999 have begun. Checks on the quality of the service were carried out systematically (on a sample basis) in order to confirm the information already held by the AEEG. Monitoring activity in the electricity sector was a preparatory step to the regulation of the continuity of the service, in the form of the recognition, through the electricity tariff, of the service continuity improvements achieved by operators with effect from 2000. Extraordinary inspections were carried out in relation to tariff regulations and the arrangements for the gas service and CIP provision 6/92 for electricity producers, mainly in response to breaches of the regulations, requests from consumers and users, or appeals by interested parties. The manner of carrying out technical checks also differed from the previous year. The type of inspections carried out in each intervention was extended by introducing multi-purpose inspections where practicable, without increasing the AEEG staffing levels required to do so. All this was made possible by the experience gained over the year, and with the help of additional specialist resources made available by the co-operation agreement with ENEA. Between May 1999 and April 2000, 41 technical inspections were carried out (bringing the total to 90) on 39 operators, of which 17 were gas distributors and 22 electricity producers and distributors. This sample was sufficiently representative of the AEEG's field of responsibility.

The programme of technical inspections provided evidence of discrepancies in the gas tariffs, the existence of undue costs for users, unsatisfactory work carried out on electricity plants seeking eligibility to the subsidies envisaged by CIP provision 6/92, and irregularities in quality of service data, and also led to the discovery of a distributor of LPG who was not registered elsewhere. The programme of checks on the quality of the service led to a noticeable increase in applications for ISO 9000 certification, especially by medium-size companies.

In most cases any irregularities that emerged were put right through simple interventions by the officers of the AEEG, while the findings of inspections of plants seeking eligibility for the contributions envisaged by CIP provision 6/92 gave rise to AEEG Decisions.

Disputes

Of 174 provisions adopted by the AEEG since it began operating in April 1997 and up to the end of 1999, 38 were contested, making a total of 135 legal appeals. 63 of the appeals were presented by companies with high electricity consumption, while 41 were submitted by companies – mainly small ones – producing and distributing electricity, and 13 by gas distribution companies. 6 appeals were presented by category associations or consumer protection associations, 4 by natural persons and 1 by a branch of the public administration.

Most of the appeals concerned provisions relating to the electricity sector, with particular reference to provisions regarding wheeling and adjustments or changes to tariffs; those relating to gas companies nearly all involved Decision 193/1999 (*Adoption of urgent provisions regarding the criteria for the negotiation of the prices for the sale of natural gas subject to regulation and for changes to the tariffs for the distribution of natural gas over urban networks*). With particular regard to the period running from April 1999 to April 2000, 18 provisions adopted by the AEEG were contested, making a total of 79 appeals.

The rulings laid down by the Courts did not at any time concern the substance of the Decisions themselves but always focused on collateral issues, without compromising the general significance of the AEEG's provisions.

Activities of communication, dissemination and documentation

Communication and dissemination

The implementation of electricity service liberalisation, the privatisation of the principal operators in the sector, and the imminence of the deadlines for the implementation of Directive 98/30/EC all contributed to the debate in institutional and academic circles on the prospects for the integration of the Italian energy system in the European market.

The prospects and opportunities presented by the liberalisation of the electricity and gas sectors and the role played in this context by an independent regulator attracted growing attention from foreign operators, analysts and academics; a large number of meetings were organised with officers from the AEEG, who provided them with clarifications, explanations and further information.

In the run-up to important provisions such as the tariff reform, the regulation of the service and the supply conditions of the electricity sector, the officials of the AEEG organised meetings in Rome and Milan to illustrate the proposals, both for the non-specialist public and for operators in the sector. The AEEG also provided information to the press and media to illustrate its decisions, especially for the public, and to disseminate, divulge and explain documents that are often technically complex. During the year over 50 press releases were issued, while meetings were organised with journalists on the most important initiatives. Representatives of the AEEG took part in numerous seminars and conferences in Italy and abroad, to illustrate and explain the numerous steps to be carried out in the liberalisation of the electricity and gas sectors, the tariff reform, the regulation of the quality of the service and the protection of consumers. Representatives of the AEEG also took part in training programmes and seminars in academic institutions on regulation and related topics. Attention also focused on the exchange of information and visits by delegations from foreign regulatory bodies, including those of Eastern Europe.

Publications and documentation

Papers on topics of interest regarding regulation in the energy field continued to be published in the *Quaderni* series.

Publications included the results of a research project on the methods followed for international comparisons of electricity prices (*Analisi* series) and an overview of the results of the opinion poll promoted by the AEEG on Satisfaction and Expectations of Domestic Users of Electricity and Gas (*Quaderni, Documenti* series no.3). This was the first survey of this type to be carried out in Italy by an impartial body rather than by a supplier. The Reports on the quality of the Electricity and Gas Services in 1998 were also published in spring 2000.

The AEEG's Internet site (www.autorita.energia.it) was constantly up-dated with the insertion of new provisions and AEEG documents. With effect from November 1999 the list of eligible customers in the electricity sector has also been published. This is up-dated weekly. The quantity of information available, and the fact that the material is constantly up-dated, means that the site has become the principal means of publicising general provisions, consultation documents and information on the work of the AEEG. This is reflected in the growth in the number of visitors to the site, which rose from about 40,000 in April 1999 to over 200,000 in 2000. The growing number of documents on the site, together with the need to publish non-institutional and service information, have created a need to review the

structure and graphics of the site to make it easier to navigate and to find information. These changes will be completed in 2000.

STAFF, FINANCIAL MANAGEMENT AND ORGANISATION

Staffing structure

In 1999 and the early months of 2000 the gradual process of increasing the AEEG's staffing levels continued. In the 12 months ending 30 April 2000 the number of staff rose from 73 to 80, including staff seconded or posted temporarily from the public administration and other public bodies (up from 7 to 10). At the end of the period under review the staff included 35 permanent employees, 35 temporary staff, and 10 temporary postings or secondments.

Notwithstanding the growing workloads and high levels of responsibility resulting from the task of overseeing the institutional transformation of the regulated sectors, the overall number of staff is still below the ceiling of 120, including 40 temporary contracts, that was laid down by the law setting up the AEEG. Increases in staffing levels have been slow and subject to careful selection procedures, which in addition to evaluation of candidates' CVs, qualifications and past experience, also include aptitude tests carried out by a specialist company. The AEEG initially availed itself of the option envisaged in law 481/95 for the recruitment of permanent staff through special selection procedures; these applied only in the early stages and for no more than half of the contracts in question. The first public competitions for permanent positions were introduced this year. Several staff have been recruited on two-year, renewable contracts, again after a careful selection process. The average age of staff, 80% of whom are graduates, is 39.

The results achieved by the AEEG in its first three years of activity bear witness to the quality and skill of its staff. Other factors contributing to these results and to the AEEG's objective of guaranteeing high levels of efficiency and motivation in the public service include pay levels that are satisfactory, although not comparable with those to be found in some of the sectors regulated by the AEEG; intense, albeit only partly formal, internal training activity; the staff evaluation procedures and ethical code; and the climate of co-operation within the organisation.

The AEEG is run along flexible lines so that activities can be organised by objectives and the hierarchical structure kept as flat as possible. Some changes were made to the organisational structure in 1999 and the early months of 2000 to reduce the distinctions between tariff- and market-related duties; this distinction was useful in the early stages but is less necessary now, as the liberalisation process gains pace.

The AEEG has opted to keep its structure fairly streamlined by outsourcing many of its support services by means of transparent procedures. The services in question include: IT assistance and payroll, transport, cleaning and security services. In view of the specialist requirements, the rapid transformation of the regulated sectors and the corresponding growth in its technical functions, the AEEG called on the services of external experts and consultants for some of its tasks, and set up study groups for particularly complex subjects.

As envisaged by the law setting up the AEEG, its contractual pay levels are in line with those of the Antitrust Authority. Annual pay (gross of tax but net of the annual bonus and employers' social security contributions) amounted at April 2000 to 197 million lire for senior management, 101 million for senior officials, 65 million for office staff and 46 million for clerical and support staff.

Infrastructure

Library

In 1999 the organisation of the AEEG's Documentation Centre was completed with the cataloguing and indexing of the library. New purchases included juridical, statistical, economic and bibliographic databases that can be consulted using the intra- or Internet. The catalogue currently includes about 1,700 publications including research papers, periodicals and other literature.

Logistical difficulties and a shortage of human resources assigned specifically to this area mean that the library cannot for the time being be opened to the public. This remains, however, a long-term objective.

IT resources

In 1999 the up-grading of the AEEG's IT resources continued. The IT framework is innovative, flexible and secure, in keeping with the rapid evolution of the operational contexts and the growing degree of interconnection with the outside environment.

Work was completed during the year on the network infrastructure of the Milan headquarters, while the purchase of portables brought the number of PCs in the Milan and Rome offices at 31 December 1999 to 120. The AEEG's IT equipment also includes two workstations for database interrogation and Internet connections, and a number of networked printers. The recruitment of a new IT expert increased the support available to staff. Other IT projects include:

- secure access to Internet services on the local networks in Milan and Rome using extranet-type solutions along with the dedicated link between the two local networks;
- the activation of a video-conferencing and data-sharing service;
- experiments with a view to setting up an intranet for the recovery of institutional information, the distribution of internal and external databases and the dissemination of general documentation services;
- a pilot project for an integrated system for the management of the AEEG's databases of technical and economic data on electricity distribution.

IT training for staff amounted to about 130 teaching sessions for 50 employees, for a total of over 400 person/days. Training was also provided on the use of the databases.

FINANCIAL MANAGEMENT

The financial management, governed by the AEEG's Accounting Regulations, is based on the annual budget. The financial statement illustrates the results of the financial year, which coincides with the calendar year. The statement for 1999 was approved in Decision 77/2000. As in previous years, revenue (32.3 billion lire) exceeded expenses due (22.4 billion lire), generating a surplus of 10.3 billion (net of variations caused by residual liabilities, equal to 0.4 billion).

The reduction of the surplus with respect to the 1998 figure (14.8 billion lire) reflects a slight fall in revenue (3.7%) accompanied by a considerable increase in outlay (17.5%), especially current expenditure. In view of the fact that the contribution paid by operators remained unchanged at 0.6 per

thousand (the rate is set by the Ministry of Finance), the fall in revenue reflects continuing difficulties in collecting the contribution. The lion's share of expenditure consists of salaries and related expenditure, which amount to almost 12 billion lire with respect to the total of 19 billion.

Since pay levels fell back in relative terms (in line with the employment contract of the staff of the Bank of Italy), the considerable increase in labour costs reflects the increase in staffing levels as a result of recruitment in the second half of 1998 and in 1999.

The salaries of the members of the board of the AEEG are equated to the pay of the President and Judges of the Constitutional Court. For the year under consideration these and related expenditure amounted to 2.3 billion lire, which was in line with the previous year.

About 12% of the overall expenditure was for externally commissioned services, which in view of the strict constraints on staffing levels were necessary to ensure that the AEEG could perform its regulatory functions effectively. In 1999 these services accounted for 2.8 billion lire (compared with 3 billion the previous year), of which 1.9 billion can be attributed to services, 0.5 billion to expenditure for the functioning of boards, committees and commissions, and 0.4 billion to fees paid to external consultants.

Capital expenditure amounted to about 0.25 billion lire and consisted mainly of expenditure for the purchase of IT equipment and specialist material for the library. The AEEG does not possess any vehicles.

This year too the entire administrative surplus was paid into the Revenue Compensation Fund. Future surpluses will also be paid into this fund, until a total of 40 billion lire is reached. This is considered sufficient to ensure that the structure remains operational in the eventuality of late or incomplete payment of operators' contributions.