

2011



Economic responsibility

Our approach

For Terna service objectives are integrated with those of economic performance. The synthesis of the two aspects lies in the search for operating efficiency and opportunities for growth, while fulfilling service obligations, in particular the security of the electricity system.

In Italy, Terna manages the transmission of electricity as a monopolist. Therefore, it cannot increase its business or revenues by enlarging its market share and pursues these objectives mainly by:

- promptly carrying out the investments provided for by the Grid Development Plan, which are at the same time useful for improving the electricity service for society and a source of corporate income;
- seeking operating efficiency and optimizing its capital structure;
- developing non-traditional activities linked to transmission, such as storage (see dedicated box - page 69);
- seeking business opportunities in industries other than transmission, such as the project for exploiting its assets by constructing photovoltaic plants on land adjacent to its power stations (see the box entitled “Terna’s second photovoltaic project” page 36) and other non-traditional ventures specified in the 2012-2016 Strategic Plan.

Other opportunities for growth lie in the expansion of activities abroad. The search for new investment possibilities in the transmission industry has focused on the Southern Mediterranean area and the Balkans, where a number of projects regarding in particular the construction of interconnection lines are being developed.

For a detailed presentation of the economic and financial results achieved by the Group, see the Annual Reports available online at www.terna.it in the “Investor Relations” section, especially the 2011 Annual Financial Report. In any case, the main results of the last three years are reported in this chapter in conjunction with the subject discussed: for example, the share and dividend performances are reported in the “Relations with shareholders” section, while the investments carried out are presented in “Terna’s economic impacts” section.

The “Revenues and risk management” section provides information on the different sources of Terna’s revenues – with particular regard to the effects of the regulatory framework – and their respective relative weights, as well as the measures implemented by the Company to prevent and cope with the risks connected with its business.

The economic effects of Terna’s business do not end with its financial results. “Terna’s economic impacts” section includes the most important qualitative and quantitative information connected with the Company’s relationship with specific stakeholders. The most significant of these relationships are described in the final sections of the chapter, which also illustrate Terna’s commitment to developing initiatives and management instruments that are consistent with the provisions of its Code of Ethics. In particular, the following should be noted:

- the pursuit of transparency and communicative clarity in relations with shareholders;
- the selection of suppliers conducted according to compliance criteria with qualification requirements, including respecting regulations regarding the environment and occupational safety;
- concern for the companies in the electricity industry, both in applying the non-discrimination principle and beyond the obligations established by the regulatory Authority.

Revenues and risk management

Revenue structure and regulatory framework

In 2011, the Terna Group’s revenues from continuing activities amounted to 1,636 million euros. Most of this (nearly 94%) derived from activities subject to remuneration as established by the Electricity and Gas Authority (AEEG) and only 6% regards other activities, which consist mainly of the provision of specialized services by the Terna Group to other companies, such as HV plant maintenance belonging to other owners, plant engineering, maintenance of the fiber optics grid owned by third parties, housing TLC equipment, and other consultancy activities in the transmission field.

Regulated revenues

Regulated revenues are generated by different tariff components – the most important of which is the transmission fee – paid to Terna by different categories of companies in the electricity industry (Distributors, Acquirente Unico (the single buyer) and Dispatching Users), based on specific allocation drivers established by the AEEG (energy quantity, available power, number of injection/withdrawal points).

The AEEG annually determines the unit sum of the tariff components on the basis of rules established at the beginning of every four-year regulatory period. The contributing factors are, on the one hand, costs including margins that are recognized to Terna, and on the other, the reference quantities (forecast) of the above-mentioned allocation drivers. The cost components considered for determining the transmission tariffs mainly belong to three categories:

- **Remuneration of the RAB.** The value of the RAB (Regulated Asset Base) is annually revalued on the basis of the Istat number on the change in the gross-fixed-investment deflator and updated on the basis of Terna's net investments. These investments are for both the construction of electricity infrastructures (lines and stations) to renovate or develop the grid (work included in the Grid Development Plan) or of a different nature (i.e., IT systems or technologies aimed at improving the security of the electricity system). The RAB is remunerated by the AEEG at a rate of return linked to the market one, which was established at 6.9% up to 2011, and at 8.4% as of 2012. This rate is increased for a limited number of years for categories of development investment that are considered to be of particular strategic importance. In 2011, remuneration of the RAB represented nearly 47% of Terna's recognized costs.
- **Amortization.** Provision is made for the annual adjustment of the amortization recorded because of the effect of new investments, divestments, the termination of the useful life of assets, and the revaluation based on the change in the deflator of gross fixed investment. The share of amortization remuneration represented in 2011 approximately 27% of the total recognized costs.
- **Operating costs.** These are the costs regarding the activities of transmission, dispatching, and metering: in general, the costs of labor and the procurement of goods and services that do not represent an investment. The component covering these costs, which in 2011 amounted to nearly 26%, is revalued annually on the basis of inflation and it is subject to a price cap mechanism, i.e. reduced yearly by an efficiency factor. At the end of the previous regulatory periods, the efficiency increase achieved exceeding the pre-established efficiency factor was equally divided between Terna and end users in terms of tariff reduction.

Once the unit amounts of the different tariff components have been established, Terna's revenues will depend on the actual trends of the allocation drivers of recognized costs, particularly, of transferred energy: in effect, because of the volume effect, they can be higher or lower than expected. The sharp business contraction that began in the second half of 2008 together with the increased energy injected into distribution grids (that "locally" meets part of the demand and consequently reduces the energy transmitted along the transmission grid) made the trend of transmitted energy more uncertain and led the AEEG to confirm only for 2012 the mechanism of partial neutralization of the volume effect introduced with its Resolution ARG/Elt 188/08. This mechanism provides for the AEEG to:

- supplement Terna's remuneration regarding the volume share exceeding the maximum limit of 0.5% if the final volume is smaller than the one used for the tariffs;
- require Terna to return the increased earnings regarding the volume share exceeding the maximum limit of 0.5% if the final volume is larger than the one used for the tariffs.

As of 2013, the transmission tariff will become binomial, i.e. based on two allocation drivers: approximately 95% of the recognized transmission costs, currently allocated on the basis of transmitted energy, will be divided based on available power in the interconnection points between the transmission grid and the distribution grids, while the remaining part will be allocated according to transferred energy; this should guarantee a greater stability of the tariff revenue and will eliminate the need for the neutralization mechanism of the volume effect.

Pass-through items

To keep the electricity system in a balanced condition, the Parent Company Terna has to regulate it. This involves transactions for buying and selling energy in particular on the Market for Dispatching Services (MDS). Rules require that the economic balance of these transactions be zero for Terna: they are pass-through items that do not influence the net income in the Terna Group's Income Statement. These items also include the remuneration that Terna receives from distributors and pays to other owners of segments that are part of the National Transmission Grid.

In 2011, the Terna Group's pass-through revenues and expenses totaled 5,026 million euros (4,831 million euros in 2010). Valued by the application of specific tariff payments, these items are regulated by Terna with the industry companies. An important pass-through item is the so-called uplift, a payment covering the net expenses incurred to procure resources on the MDS, which for 2011 amounted to nearly 1,261 million euros (nearly 1,153 million euros in 2010). The uplift is included in the user's bill. Even if it does not influence Terna's profitability, pass-through revenue – among other things, also owing to its size – has important repercussions on its relation with the industry companies with regard to the commercial and administrative management of contracts and receivable and payable billing.

2011 Incentive Schemes

The AEEG has introduced specific bonus and penalty schemes aimed at incentivizing service improvement, both in technical and economic terms. Implicit in the incentive schemes is the assumption that if the objectives are achieved, the benefit for the users of the service will be a multiple of the incentive paid to Terna. In particular, in 2011, incentive based mechanisms were provided for:

- the quality of the transmission service. For the period 2008-2011, the AEEG's Resolution 341/07 established a framework of incentives and penalties linked to two indicators: the ENSR (relevant energy not supplied) and the NDU (number of outages per user), measured respectively nationwide and at the level of each Transmission Operating Area (AOT). The bonus/penalty is calculated by multiplying a pre-established sum (15,000 euros per MWh in the case of ENSR) by the difference between the actual value and the target value of the indicator net of an exempted range (+/-10% of the target value in the case of ENSR and +/-5% in the case of NDU). The benchmark levels were determined in 2008 and the first economic effects of the mechanism regulating service quality were generated in 2010;
- improvement of forecasts regarding energy demand and wind power production (applicable for the 2008-2011 period);
- reduction of the volume of resources procured on the MDS. The mechanism, originally introduced in 2007 for a four-year duration, was modified by Resolution ARG/elt 213/09 and extended to the whole 2012. The current mechanism provides for a differentiated unitary incentive for each year of the period without a bonus cap;
- acceleration of investment to develop the NTG. This mechanism was introduced by Resolution ARG/elt 87/10 and provides for a 3% additional incentive for the work in progress on development projects with the most value added for the electricity system (elimination of congestion, increased transfer capacity with other countries), which is conditional on the achievement of a series of milestones agreed on with the AEEG. Beginning in 2012, the application of a mechanism based on bonuses and penalties in the event development works go into operation ahead of or behind schedule.

The bonuses earned for achieving the objectives established as part of the incentive schemes in 2011 are included in Terna's total regulated revenue. In the case of the incentive for reducing the volume of resources procured on the MDS Terna in view of the result attained in 2010 amounting to nearly 160 million euros and considering the three-year duration of the incentive mechanism and of its characteristics, recorded 66 million euros revenues in its 2011 Financial Statement (compared to 77 million euros in 2010) as the related fair value adjustment, taking into account the regulatory risks and those connected with the performance of the electricity market.

INCENTIVE MECHANISMS ACTIVATED IN 2011

Objective	Year introduced	Period applicable	Penalty-bonus range	2011 result
Quality of transmission service	2007 (Resolution 341/07)	2008-2011		Bonus 7.7 million euros
Improved forecast of wind production	2007 (Resolution 351/07)	2008-2011	Penalty maximum 1.5 million euros Bonus maximum 3 million euros	Bonus 3.0 million euros
Improved forecast of demand	2007 (Resolution 351/07)	2008-2011	Penalty maximum 5 million euros Bonus maximum 5 million euros	Penalty 2.5 million euros
Reduced volumes of resources procured on the MDS	2009 (Resolution 213/09)	2010-2012	-	Bonus 16.7 million euros
Acceleration of investment to develop the NTG	2010 (Resolution 87/10)	2010-2011 as a trial, from 2012 definitively	-	Bonus 12.9 million euros

The cost of transmission on the final user's bill

On the basis of the current regulations, most of Terna's recognized costs (margins) is billed to the end users of the electricity service by the distributor companies. While an official cost breakdown is lacking for the end domestic user that directly indicates the impact of costs deriving from Terna's activities, on the basis of data published by AEEG, it can be estimated that transmission costs weigh approximately 3% on the electricity bill of a typical domestic user⁽³⁾. These costs are the main part of Terna's recognized costs (considering other minor tariff components would have no relevance), net of the let-through items.

(3) Ratio between CTRE and the gross electricity price for a typical domestic user (a family with 3 kW of power and 2,700 kWh of annual consumption); AEEG data processed by Terna.

The new regulatory framework

At the end of December 2011, resolutions no. 199/11 and 204/11 of the Electricity and Gas Authority, concluded the review process of the tariff regulation that occurs every four years and that established new tariff regulations applied to Terna's activities for the 2012-2015 period. These are very important decisions for Terna: over 90% of the Group's revenues for its continuing core activities depend on the transmission and dispatching service tariffs in Italy. The review determined a re-establishing of the various tariff components – such as the remuneration of the transfer and dispatching service – and of incentives recognized for various investment categories; this will lead to a consequent adjustment of selection criteria for Terna's investments. Below the main novelties are listed:

Investments

Returns recognized to Terna increase from 6.9% to 7.4% of the net invested capital, essentially as a consequence of the trend of the market rates. Only for new investments, a remuneration component is introduced equal to 1% of the net invested capital to be used for compensating the delay the investments find for being reflected in the tariffs, while the additional remuneration incentives recognized for 12 years for development investments are reduced; in particular, they decrease from 3% to 2% for interconnections with foreign countries and for works aimed at solving congestions within market areas (category I3 investments), from 3% to 1.5% for works aimed at solving internal congestions within market areas and from 2% to 1.5% for other development works.

As in the past, the recognized amortizations will be determined each year on the basis of investments actually made, while as of 2012, they will no longer reflect the application of the price cap mechanism during the second regulatory period.

Operating costs

The reduction objective – through the price cap system – of the operating costs recognized in real terms increases from 2.3% to 3.0% annually for transmission, to allow the system to gradually reabsorb the extra-efficiency shares obtained during the second and third regulatory period and held by Terna for applying the profit sharing, and is reduced from 1.1% to 0.6% for dispatching.

Incentive mechanisms

The previous bonus/penalty mechanism linked to the quality of the supplied service was simplified. As of 2012, the incentive remuneration will be linked to objectives of service continuity measured only by the reference non-supplied energy indicator.

The bonus/penalty mechanisms are connected to the accuracy of the demand and production forecast from wind power and were not renewed.

The incentive mechanism for accelerating development incentives was re-established following its experimental application in 2010-11. In particular, as of 2012 the reward/penalty mechanism became operational linked to the date of entrance into operation of the works. Moreover, Terna's participation in the incentive mechanism for accelerating investments (optional with no other consequences until 2011) has become the necessary condition for accessing a 2% extra-remuneration for category I3 investments.

The incentive mechanism linked to reducing the volumes of resources supplied on the Market for Dispatching Services (MDS) will remain active throughout all of 2012, as a last year of validity of a plan that was previously introduced.

Risk management

The analysis, prevention, and management of risk regard the different aspects of corporate activities. Terna's business is exposed to market and financial risks (regarding the interest rate, inflation, liquidity, and credit), risks connected with financial requirements, operating risks connected with malfunctioning of the grid, regulatory risks and litigation risks. For a description of the procedures for preventing and managing such risks, see the 2011 Annual Report, pages 81-82.

The following pages describe other aspects of risk, their relation with Terna's activities and the related measures for coping with them. The aspects considered are:

- risks and opportunities connected with climate change;
- risks connected with the electricity market and the electricity system.

The coverage of several obligations connected with employee benefits is also described.

Risks and opportunities connected with climate change

Terna is a utility whose main business is electricity transmission of, i.e. the electricity transfer service from producers to distributors, to whose networks end users are connected. The Company is not involved in any way in electricity generation, and thus is not subject to any obligation to reduce emissions or to any emission trading scheme.

Therefore, government taxation measures (e.g., carbon tax) or regulatory measures (emission-reduction targets, inclusion in emission-trading schemes) with direct consequences on Terna's business and financial performance are to be excluded. Climate change does not represent a threat for Terna as far as its foreseeable business prospects are concerned. On the contrary, climate change has led to a favorable development of legislation for renewable energy sources, which has already offered Terna new business opportunities.

Terna's management recognizes the increasing importance of climate change and has identified – in addition to opportunities – potential, albeit remote, risks linked to global warming and the reactions that it might cause in governments and in the habits of consumers.

Potential risks and opportunities for Terna's business regard the following aspects:

- the task of keeping electricity injections and withdrawals on the transmission grid in balance, which Terna performs in Italy as the transmission system operator, becomes more difficult when the climate is extreme, for example when water is scarce or the temperature is extremely high or low. The possible occurrence of critical situations increases, which can entail the temporary disconnection of users in various Italian areas and consequently cause public authorities and the mass media to focus their attention on Terna. Such situations do not threaten corporate accounts, but rather Terna's reputation. On the other hand, good management of critical situations constitutes an opportunity for Terna to consolidate its reputation as a reliable company;
- concern about climate change or the increase in the price of energy raw materials could lead to a reduction of energy demand flexibility as the GDP increases. Based on other conditions being equal, the trend to energy saving and the effort to improve energy efficiency could cause the growth of electricity demand to be lower than it is currently. However, the rules adopted so far by the sector Authority for the remuneration of the transmission service exclude the possibility that a reduction in volumes could lead to a reduction in Terna's revenues. In 2008, during a period of decreasing electricity consumption due to the international economic crisis, the AEEG introduced a mechanism that partially neutralizes the volume effect for the remaining part of the regulatory period (2009-2011). With the activation of this mechanism ensuring the level of revenues recognized, subsequently confirmed for 2012, we can say that the transmission industry has actually switched from a price-cap system, in which revenues also depend on the volume of electricity transmitted on the NTG, to a revenue-cap one, in which revenues are set *ex ante* and can vary with respect to the revenues used to establish the annual rates only by +/- 0.5%. With the regulatory review at the end of 2011, the AEEG identified a different mechanism, also oriented toward stabilizing the financial revenues that will eliminate the need for a neutralization mechanism of the volume effect. As of 2013, the transmission tariff will become binomial, based on two allocation drivers: approximately 95% of the recognized transmission costs, currently allocated on the basis of transferred energy, will be divided on the basis of available power in the interconnection points between the transmission grid and distribution grids, while the remaining part will be allocated according to transferred energy (in this chapter, see the paragraph "Revenue Structure and Regulatory Framework" and the box page 93).
- Electricity production from renewable energy sources represents various challenges for Terna, linked to increased grid connection requests for renewable energy plants and to the need to plan and implement investments for solving grid congestions problems and for efficiently and safely managing non-programmable production.

Critical aspects. New power plants running on renewable energy with more than 10 MW of power must request Terna to connect them to the transmission grid. There have been numerous requests in the last few years. Up to the present, Terna has issued connection solutions for plants that – if they were all constructed – could produce up to 130,000 MW, i.e. more than twice the power consumed in Italy at times of peak demand. After the connection solution was obtained from Terna, only some of these proposals have been developed into projects and initiated the authorization process. Sometimes there has been a time gap between the plant authorization and authorization of the connection work, which has now been solved by the use of a single authorization process. This situation, together with lengthy time frames necessary for implementing development investments required for fully utilizing the production capacity from renewables, can expose Terna to reputational risks independently from its proper conduct. Moreover, intermittent production – particularly wind power – makes dispatching activity more difficult, increasing the need for reserves.

Opportunities. Investments in the transmission grid made necessary by the connection of renewable-energy plants are a source of revenues for Terna. Furthermore, as explained in detail in the chapter on the Environmental responsibility, investments to develop the grid also entail significant consequences in terms of emission reduction in the entire electricity system (reduction of losses, improvement of the production mix, and connection of new renewable-energy plants). Terna's image can be enhanced by this positive role. The Company can also develop business opportunities regarding the long-term development of solar plants in Africa to satisfy European consumption, which requires the parallel development of infrastructures to interconnect the two continents. In the short term, Terna has planned investments in energy storage systems (pumping, batteries) that can strongly favor the use of renewables while also solving problems of grid regulation. For Terna, these investments open new business opportunities indirectly connected with climate

change, as occurred in 2010-2011 with the building of photovoltaic plants on land available inside or near Terna's power stations, later sold with significant positive impacts on the company's financial performance;

- The increase in the production of energy from renewable sources – for which incentives are often provided by specific law provisions – requires Terna to prepare technical instruments that are appropriate for the new scenario. Because of its unpredictable variability deriving from changes in the atmospheric conditions, wind production entails particular problems for the regulation of the system. An incentive scheme has been in place for the period 2008-2011 that assigns Terna bonuses or penalties on the basis of the Company's ability to correctly forecast wind production (maximum bonus: 3 million euros, maximum penalty: 1.5 million euros). In each year of the three-year period the scheme has generated a bonus of 3 million euros for Terna (the maximum obtainable) thanks to the improvement of forecasts.

Risks connected with the electricity market and the electricity system

Terna procures the resources it needs to safely manage the national electricity system through the Market for Dispatching Services. This activity is critical for the security of the electricity service and also has significant repercussions in economic terms (see the "Pass-through items" and "Incentive schemes" sections).

The analysis of the processes regarding the interaction of Terna with the electricity market and the related risks has enabled the Company to identify the risks with the highest probability and the greatest impact. A dedicated system, called SIMM (Security Index Market Monitor) has also been set up to constantly monitor such risks. This system enables the Company to follow the overall performance of the electricity market through several key indicators and to promptly pinpoint any deviations from pre-established benchmarks.

Terna monitors the electricity market data also on behalf of the AEEG. The Risk Management Unit, which is part of Terna's Monitoring Division ("Integrated text on the monitoring of the wholesale electricity market and the market for dispatching services", AEEG Resolution no. 115/08), must ensure impartiality, transparency, and security in acquiring and presenting information. For this purpose Terna created the TIMM data warehouse, with the objective of monitoring the magnitudes and indicators required by the AEEG. During 2011, certification for the TIMM process has been obtained according to the ISO 27001 standard (see the "Information security" section - page 70).

Its responsibility for making the national electricity system work securely requires Terna to identify the related threats and vulnerabilities (for example, external events or failure to respect the Grid Code) and to adopt appropriate mitigation measures. The status of the national electricity system is monitored in various ways, such as:

- monitoring the status of the national electricity system;
- checks on the performance of the plants connected to the grid through the self-certification process and the analysis of the related documentation;
- inspections of the interruptible sites and checks on compliance with the technical requirements required by Terna;
- inspections of production plants under construction in cooperation with the Ministry for Economic Development to monitor delays in the entrance into operation of such plants and at the same time checking the application of the Grid Code and the obligations of future production;
- monitoring the design and construction of station defense systems and automation techniques.

Coverage of obligations connected with employee benefits

There are no defined benefit corporate pension plans in the Terna Group. In Italy, the pension coverage provided by the public system, which originally was one of the highest in OECD countries, has been reduced by a series of reforms that began in the 1990's. Terna offers its employees defined-contribution supplementary pension coverage on a voluntary basis. Specifically, senior executives may enroll in the Fondenel pension fund (<http://fondenel.previet.it>), which provides for contributions by both the executive and the Company. In both cases, the amount varies according to the date of hiring and the date the executive first joined a supplementary pension plan. The other employees (blue-collar workers, white-collar workers, and junior executives) may enroll in the Fopen pension fund (<http://www.fondopensioneopen.it>). In addition to the pension plans, employees of Italian companies receive other defined benefit payments, specifically:

- during their working life, all employees receive a contractual "loyalty bonus" when they reach their 25th and 35th year of employment at a company.
- when they terminate their employment they receive benefits that are owed all employees (severance pay – TFR), senior executives hired or appointed by February 28, 1999 (allowance in lieu of notice), and blue- and white-collar workers and junior executives hired by July 24, 2001 (IMA- additional special allowances).
- senior executives are entitled to post-employment supplementary health care (ASEM).
- employees hired by June 30, 1996 are granted reduced rates on the electricity consumed for household use (electricity discount).
- the composition and changes of the TFR and other personnel funds as of December 31, 2011 are as follows:

EC3

Million euros	31.12.2010	Provision	Interest cost	Drawdowns and other movements	31.12.2011
Benefits owed during employment					
Loyalty bonus	4.2	0.0	0.2	-0.6	3.8
Total	4.2	0.0	0.2	-0.6	3.8
Benefits owed at termination of employment					
Severance pay	67.9	0.0	2.4	-5.9	64.4
IMA bonus	6.7	0.4	0.4	-1.0	6.5
Allowance in lieu and similar benefits	3.0	0.0	0.0	-0.3	2.7
Total	77.6	0.4	2.8	-7.2	73.6
Post-employment benefits					
Electricity discount	29.3	0.8	1.3	-0.5	30.9
ASEM	11.2	0.0	0.2	-0.5	10.9
Total	40.5	0.8	1.5	-1.0	41.8
Total	122.3	1.2	4.5	-8.8	119.2

Amounting to 119.2 million euros as of December 31, 2011 (122.3 million euros as of December 31, 2010), the item recorded a 3.1 million euros decrease with respect to the previous year, attributable to the year's drawdowns (8.8 million euros), which were partially offset by the appropriations and the recording of the time-discounting expense of the period (a total of 5.7 million euros).

The following table breaks down the costs regarding liabilities for benefits to employees recorded in the Income Statement.

Million euros	TFR	Allowance in lieu and similar benefits	IMA	Loyalty bonus	ASEM	Electricity discount	Total
Current cost	0.0	0.1	0.3	0.2	0.2	0.8	1.6
Financial expenses	2.4	0.0	0.4	0.2	0.2	1.3	4.5
Disbursements and transfers	-0.1	-0.4	0.1	-0.2	-0.5	0.0	-1.1
Total	2.3	-0.3	0.8	0.2	-0.1	2.1	5.0

The following table shows the main assumptions used in the actuarial estimate of the liabilities for employee benefits.

Percentage values	2011	2010
Discount rate	4.1%	4.1%
Rate of increase of labor cost	2.0% - 4.0%	2.0% - 4.0%
Rate of increase of health-care cost	3.0%	3.0%



Value added

In the 2009-2011 period, the value added generated by the Group increased by 25% with regard to its continuing operations.

Also considering the value added of discontinued operations, the 2010-2011 variation is of 2.4%, while the comparison with 2009 was influenced by the significant positive impact deriving from the extraordinary sale transaction of the Brazilian Group Terna Participações that was finalized that same year.

During the 2009-2011 three-year period, the incidence on the total net value added of the remuneration of employees (on average 25%) and borrowed capital (on average 14%) was essentially stable.

With reference to direct and indirect taxes, the "second corrective measure", approved with Legislative Decree no. 138 of August 13, 2011 (named the Robin Hood Tax), determined an increased tax incidence, on average equal to 25%, compared to the total net value added (+13.8% compared to the 2009 data). Without considering this phenomenon, that led to registering higher taxes by 153.8 million euros, the incidence of direct and indirect taxes on the total net value added, would have remained substantially unvaried (approximately +1%).

As a proportion of the total net value added, the remuneration of risk capital has increased as opposed to 2009 (+4.6%). During the three-year period, the allocations to reserves decreased (from approximately 29% to approximately 1%), considering the strongly negative impact on the 2011 results of the so-called Robin Hood Tax and the dividend policy adopted by the Parent Company, as established in the 2010-2014 Strategic Plan, that was defined taking into account the extraordinary sale transaction of the Brazilian companies that characterized the 2009 results.

TERNA GROUP – VALUE ADDED STATEMENT ⁽¹⁾

Values in euro	Financial period 2011	Financial period 2010	Financial period 2009
A. Production value			
1. Revenue from sales and services	1,591,278,319	1,533,102,227	1,346,812,023
4. Other revenue and proceed	44,323,144	56,077,819	43,379,376
Standard production revenue	1,635,601,463	1,589,180,046	1,390,191,399
5. Non-standard production revenue (self constructed assets)	100,980,008	91,972,485	77,407,493
Total production revenue	1,736,581,471	1,681,152,531	1,467,598,892
B. Costs of production			
6. Raw materials	33,699,422	38,433,650	31,236,973
7. Services	156,814,420	157,561,339	135,829,303
8. Leasing and rental expense	12,536,915	12,050,835	13,893,976
9. Provisions for risks	6,577,183	2,009,949	3,620,822
11. Other expense	10,367,402	12,824,885	26,422,832
Total intermediate cost of production	219,995,342	222,880,658	211,003,906
Standard gross value added	1,516,586,129	1,458,271,873	1,256,594,986
- Accessory revenue	391,985,314	107,370,164	91,961,322
- Accessory costs	326,332,709	83,607,472	86,900,793
12. Accessory balance	65,652,605	23,762,692	5,060,529
Gross net standard value added	1,582,238,734	1,482,034,565	1,261,655,515
Amortization intangible assets	50,822,429	45,118,232	54,832,235
Depreciation tangible assets	345,381,259	315,602,303	257,711,993
Net global value added	1,186,035,046	1,121,314,030	949,111,287
Value added of discontinued operations held for sale	112,703,809	146,847,712	416,976,119
Total net global value added	1,298,738,855	1,268,161,742	1,366,087,406
Non-subordinate personnel	1,957,413	1,621,627	2,063,354
Subordinate personnel: direct remuneration	217,416,887	214,860,807	182,908,901
Subordinate personnel: indirect remuneration	63,742,596	64,879,119	64,796,883
A. Remuneration of personnel	283,116,896	281,361,553	249,769,138
Direct taxes	387,281,919	246,825,990	177,969,448
Indirect taxes	6,133,331	6,620,414	5,579,516

TERNA GROUP – VALUE ADDED STATEMENT ⁽¹⁾

Values in euro	Financial period 2011	Financial period 2010	Financial period 2009
B. Remuneration of government	393,415,250	253,446,404	183,548,964
Short-term loan expense	45,248	185,869	14,975
Interest on bank loans	92,634,544	80,378,970	89,763,459
Interest on bonds	89,522,207	40,810,758	57,855,170
C. Remuneration of borrowed capital	182,201,999	121,375,597	147,633,604
Dividends ⁽²⁾	422,098,320	421,650,343	380,523,323
D. Remuneration of risk capital	422,098,320	421,650,343	380,523,323
Allocations to reserves	17,906,390	190,327,845	404,612,377
E. Remuneration of the Company	17,906,390	190,327,845	404,612,377
Total net global value added	1,298,738,855	1,268,161,742	1,366,087,406

(1) The sums regarding the creation and distribution of value added are taken from the Consolidated Financial Statements, which were prepared in compliance with the IFRS/IAS international accounting standards. Specifically, the Terna Group has used IFRS/IAS international accounting standards since 2005. It should be noted that the "Total Net Global Value Added" refers to the value added generated from continuing activities.

It should also be noted that various comparative economic balances for 2010 and 2009 were modified considering the changed accounting model adopted by the Terna Group for goodwill taxation. Particularly with this restatement, current taxes (direct taxes) were modified for 2010 and 2009 (respectively for +1.6 million euros and for -14.2 million euros) with a consequent variation of the relative allocations to reserves for the respective years. It should be noted that referring to 2009 balances, in accordance with IFRIC 12 – "Service Concession Arrangements", as from January 1, 2010, the Income Statement records the costs and revenues regarding dispatching as construction costs and revenues, without any effect on, respectively, the Group's results and the total net value added.

(2) The 2011 dividends regard the interim dividend distributed in November 2011 (160.8 million euros) and the balance proposed by the Board of Directors on March 20, 2012 (261.3 million euros).

Other economic effects

EC9

Terna's economic impact does not end with the creation and distribution of value added. One must also consider, **first of all, the economic repercussions of the electricity service**: Terna ensures over time a service of general interest and thus contributes to Italy's economic growth.

The Company's grid development activity is of particular importance. The development of interconnections between bordering countries makes it possible to import electricity at prices that are more competitive than those of domestic production, to have an additional power reserve and to be more competitive in energy markets. The reduction of grid congestion improves the exploitation of generation resources for covering requirements and makes it possible to use the most competitive plants, with positive effects on competition in the generation segment and on end prices.

In compliance with the regulatory framework, all of Terna's investments in grid development are examined from the technical and economic points of view by comparing the estimated cost of the work with the related benefits in terms of the reduction of the overall system expense in order to maximize the cost/benefit ratio. Consequently, every euro invested by Terna generates on average a multiple of savings for the users of the grid, as reflected ultimately on the end consumer. It is therefore significant that Terna's investments (most of which for grid development) have constantly increased in the last few years.

INVESTMENTS - TERNA GROUP

	2011	2010	2009	2008	2007	2006	2005
Million euros	1,219.80	1,161.70	900.4	764.9	606	345.5	263.5

As for 2010, also in the 2011 financial period the number in the table regards only the Terna Group's core investment in continuing activities; it does not include investments in non-traditional activities, which amounted to 9.4 million euros.

As decreed in the Ministry for Economic Development's Directive of January 21, 2000, in determining possible development investments, the Company also pays the utmost attention to the need for service improvement in Southern Italy and other areas in which the electricity transmission system is less efficient in terms of reliability and continuity, also because in such areas the upgrading of the transmission grid can be decisive for social and economic development.

In 2011, public contributions to the plant account – recorded directly to reduce the value of the plants – amounted to 2,316,994.17 euros (3,652,564.86 euros in 2010 and 5,843,139.83 in 2009).

Another aspect to consider is the **creation of employment and the expense for procurement**. As of December 31, 2011 Terna had 3,493 employees, of which 960 in Rome at the company's headoffice, the National Control Center (CNC) of the

EC4

transmission grid and Rome's Transmission Operating Area (AOT). The other employees (nearly 2,500) were uniformly distributed throughout Italy at the 7 other local operating areas of Turin, Milan, Padua, Florence, Naples, Palermo, and Cagliari – under which 32 Line Operating Groups (GOL) and 32 Station Operating Groups (GOS) work – 8 Distribution Centers (CR), and 3 Remote-Control Centers, which have offices throughout the country.

Through the construction and maintenance of power lines, in 2011, Terna indirectly determined the employment of labor by **contractors and subcontractors totaling the equivalent of 2,076 full-time employees.**

EC6

In 2011, the **economic value of Terna's procurement** of services, supplies, and works was equal to nearly 1.2 billion euros. Most of these were purchased from Italian suppliers, although the share of foreign suppliers is growing.

The predominance of Italian suppliers does not conflict with the Group's policy, which excludes selecting suppliers on the basis of their location, and is due to the need for fast maintenance work on plants to ensure the utmost security of the electricity system. Furthermore, suppliers located nearby ensure greater competitive costs regarding the transportation of heavy and bulky supplies.

Terna S.p.A. makes most of its purchases from companies that are qualified pursuant to EU directives or through EU-wide tenders. Italian companies constitute a large majority of those that apply and qualify. However, it should be noted that a significant share of the sum spent on local purchases actually regards Italian branches of internationally significant industrial groups such as ABB, Siemens and Prysmian, which are predominant worldwide in the specific markets concerned.

The following table breaks down Terna's total procurement expenditure in the period 2009-2011 (including non-traditional activities):

PURCHASES FROM LOCAL AND FOREIGN SUPPLIERS (PERCENTAGE OF TOTAL PROCUREMENT) ⁽¹⁾

	2011	2010	2009
Local suppliers	91	94	99
Foreign suppliers	9	6	1

(1) Data regarding Purchase percentages made with the Associazioni Temporanee di Imprese (ATI) (Temporary Business Associations), previously published, was reclassified among Italian and foreign suppliers according to the nationality of the purchasing agent.

The share of expenditures with foreign suppliers is equal to 9% of the total, increasing compared to the previous year (6%). This increase is mainly owed to the assignments made through European tenders for the supply of armored station equipment and HV cables by new Asian operators.

Other economic impacts connected with the resources that Terna dedicates to the support of charitable initiatives and in the artistic and cultural fields, are described in the section entitled "Community initiatives", page 179.

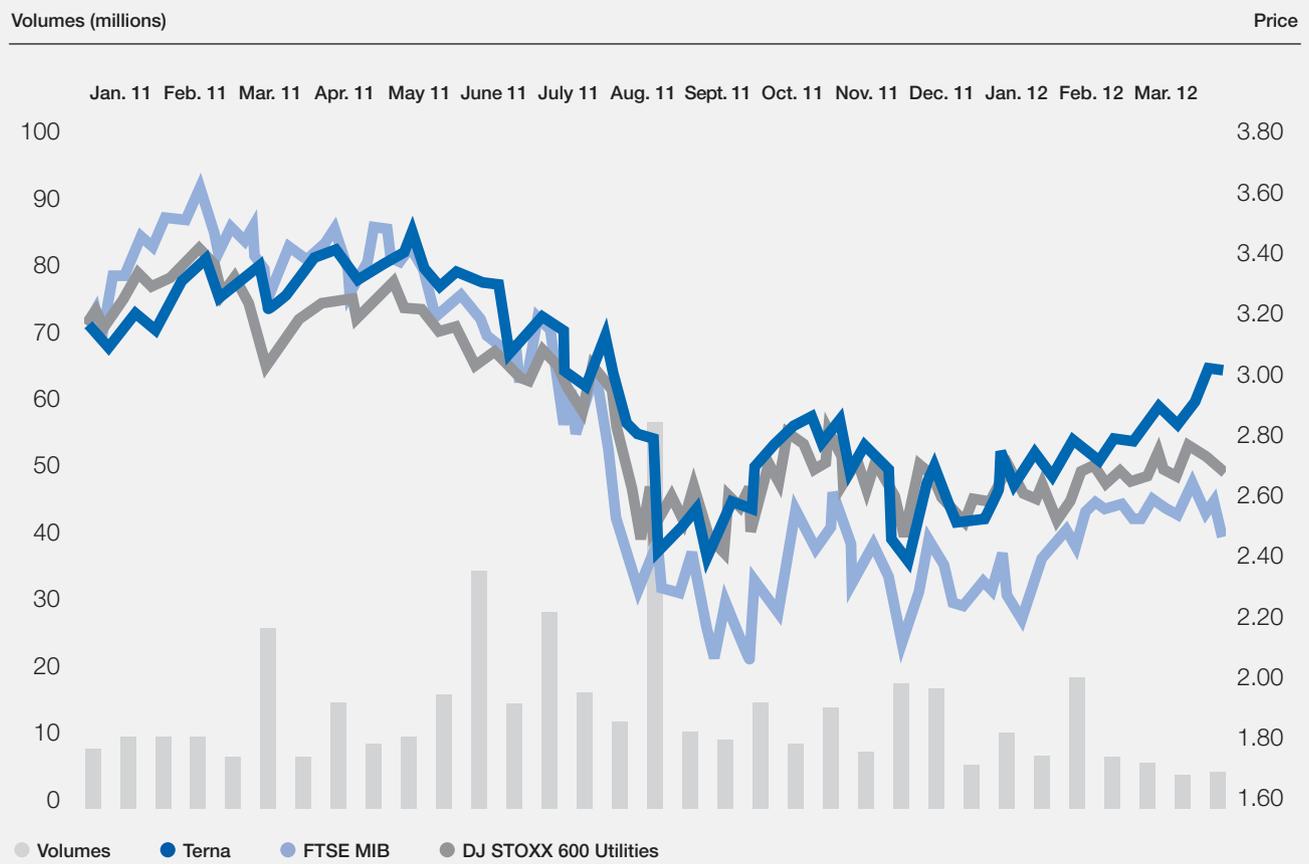
Relations with shareholders

Share performance

In 2011, the European stock markets recorded strong negative trends owing to the worsening of the economic situation, characterized by a weak economic recovery and by high unemployment rates. The lasting crisis of the sovereign debt called for new economic stimulus plans on the part of governments and contributed to creating further instability among investors and increasing the volatility of exchanges.

In this context and despite the negative impact of the increased taxes in August 2011 (extending the Robin Hood Tax to the electricity transmission sector), the defensive nature of Terna's shares allowed registering a performance that was better than that of the Italian Blue Chips (Terna -17.6% vs FTSE-MIB -25.2%). The share's average daily volume was equivalent to approximately 10 million shares traded, decreasing with respect to last year.

TERNA'S SHARE PERFORMANCE AND FTSE MIB AND DJ STOXX 600 UTILITIES INDEX PERFORMANCE



Source: Bloomberg. Data as of March, 30 2012

From its listing (June 23, 2004) to the end of 2011, Terna's shares had an appreciation of 53.2%, compared to the negative performance of FTSE-MIB equal to 45.9%.

In the first quarter of 2012, Terna recorded a rise of 16%, definitely out-performing both the market (FTSE-MIB +6%) and the European reference sector (DJ Stoxx Utilities +2%).



Total Shareholder Return

The most complete measure of the value created by a company for its shareholders is the TSR (Total Shareholder Return), which is calculated by adding the increase in the price of the shares, in a given period of time, and the effect of the dividends per share paid in the same period. The calculation of the TSR thus shows the annual rate of return for an investor who bought Terna's shares on a certain date and sold them on another date. This calculation considers all the dividends paid by the Company as of the ex-dividend date of the related coupon.

In terms of total shareholder return, in 2011, Terna over-performed the index of Italian Blue Chips (Terna -11.4% vs. FTSE-MIB -22%).

Since listing to the end of 2011, the TSR reached 140.6%, in net counter-trend compared to the average return of Italian Blue Chips that in the period lost 27.4%.

DIVIDENDS DISTRIBUTED BY TERNA S.P.A. ⁽¹⁾	Year	Ex-dividend date	Payment	Dividend (euro)
Interim dividend 2004	2004	October 18	October 21	0.045
Dividend balance 2004	2005	May 23	May 26	0.070
Interim dividend 2005	2005	November 21	November 24	0.050
Dividend balance 2005	2006	June 19	June 22	0.080
Interim dividend 2006	2006	November 20	November 23	0.053
Dividend balance 2006	2007	June 18	June 21	0.087
Interim dividend 2007	2007	November 19	November 22	0.056
Dividend balance 2007	2008	June 23	June 26	0.095
Interim dividend 2008	2008	November 24	November 27	0.0592
Dividend balance 2008	2009	June 22	June 25	0.0988
Interim dividend 2009	2009	November 23	November 26	0.07
Dividend balance 2009	2010	June 21	June 24	0.12
Interim dividend 2010	2010	November 22	November 25	0.08
Dividend balance 2010	2011	June 20	June 23	0.13
Interim dividend 2011	2011	November 21	November 24	0.08

(1) Terna has adopted a policy providing for the payment of dividends twice a year.

Terna's concern for its shareholders

Terna's concern for its shareholders has enabled the Company to create a solid, enduring, and internationally diversified shareholder base over the years. This shareholder base now includes more than 470 funds with a medium-long investment time horizon and nearly 115,000 individual investors. Foreign institutional investors are located in 39 different countries, with North American ones being the most numerous (over 18% of the total).

Socially responsible institutional investors have become increasingly significant. 95 such institutions are indeed present in the shareholder register (compared to 32 in 2005) and their weight in the share capital has increased from 2% in 2005 to over 11%.

TERNA'S SHAREHOLDER BASE ACCORDING TO GEOGRAPHICAL AREA

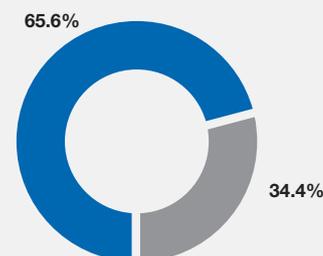
● Italian shareholders

of which CdP	29.85%
of which Retail	27.8%
of which Institutional Investors	8%

● Foreign institutional investors

of which UK	6.7%
of which Usa/Canada	4.8%
of which Europe (excl. UK)	11.5%
of which Others	11.3%

Total 100%



Relations with suppliers

As stated in its Code of Ethics, Terna considers as priorities transparency and fairness in its relations with suppliers (2,314 contracted in 2011). Suppliers that satisfy conditions of non-involvement in illegal activities, compliance with safety standards, respect for human rights and organizational and professional solidity, are welcomed to compete on quality and price as equals. Procurement is normally carried out on the basis of the outcome of **tenders** that ensure equal opportunity and the utmost transparency to the participating companies. The objective of purchasing at the lowest cost for the level of quality and security required is always integrated with also checking the requirements of suppliers with regard to **ethical, social, and environmental aspects**.

In general, all procurement contracts include clauses regarding the supplier's commitment to comply with Terna's Code of Ethics and its 231 Organizational Model (see also page 41).

HR2

Since 2008 Terna has required suppliers to sign a specific "Integrity Agreement" obliging them to base their conduct to the principles of honesty, transparency, and fairness and committing them to avoiding conduct that could limit competition. Furthermore, as of 2010, Terna introduced in its procurement contracts a specific clause that obliges suppliers to provide the Company with detailed information regarding all its sub-contracts, with the objective of preventing the risk of criminal infiltration through contractors, hires, supplies, or other kinds of services for the construction of the infrastructures of the National Transmission Grid (NTG), implementing the Memorandum of Understanding signed with the Finance Police.

With regard to tenders, one of the criteria provided for in the selection of suppliers is the UNI EN ISO 9001 quality certification as a guarantee of an efficient corporate management and organizational system. Terna also requires substantiated procedures adopted for the protection of the environment and of the health and safety of workers as a criterion in selecting its contractors. As part of the revision of the contractual documentation carried out in 2010, contracts now include clauses to ensure the utmost protection of the personnel used by contractors, and failure to do so will result in the termination of the contract.

During 2011, the focus on sustainability was expressed also in attributing technical points for awarding tenders (see box "Sustainability in criteria for awarding tenders" page 106).

The most important areas for Terna's core business are supplies, contract work and services regarding electricity transmission, telecommunications and Information Technology. Only companies considered suitable on the basis of the **supplier qualification system** are included in the register of qualified companies and are allowed to take part in the tenders held by Terna for their respective product categories.

Scrupulous management of the ethical, social, and environmental aspects in compliance with Terna's policies is a condition for inclusion in the register of suppliers for companies that belong to the product categories subject to qualification.

The qualification process and the monitoring of suppliers

The qualification process enables Terna to assess suppliers with regard to their compliance with the law, their technical, organizational, and economic solidity, and their respect for the ethical, social, and environmental requirements of Terna's policy as expressed in the Company's Code of Ethics.

Among other things, the qualification requirements include:

- the application of conditions regarding rules and wages that are not lower than those provided for by the collective-bargaining agreements applicable for the same kind of work;
- the application of laws regarding environmental protection and occupational safety;
- the existence of substantiated procedures, adopted for the protection of the environment and of the safety and health of workers.

The purpose of the monitoring is to ascertain whether the requirements are maintained throughout the three years in which the qualification is valid.

Such monitoring includes the use of IT systems to continuously screen information such as, for example, reports by the Company's departments, external ones, or news reported by the media. In particular, the vendor rating info sheets written by the engineers who locally supervise the construction sites of qualified companies are used to analyze the latter's performances monthly, enabling Terna to promptly take action and disseminate the information recorded among its Operating Areas. During 2011, the Company monitored 749 supplier performances.

During 2011, in compliance with the laws on the waste tracking system – SISTRI – a new merchandise sector was created named "*Waste management*" that defines the technical-quality requirements that businesses must have to be qualified and included in the supplier register. This activity regards collecting, transporting, storing, recovering and disposing of special hazardous and non-hazardous wastes produced by Terna.

In line with the objective of continuously improving qualification, the last three years marked a consistent increase of the sectors and qualified businesses, as well as of the monitoring conducted.

In the event their conduct is not in compliance with the qualification requirements, suppliers may be warned or temporarily suspended from the supplier register. In the most serious cases, cancellation is provided for. Following an analysis of their noncompliance, in 2011, 2 suppliers were temporarily suspended while none were cancelled from the supplier register. The entire company qualification process – from the initial qualification to the monitoring of actual conduct and to the infliction of sanctions – is entrusted to Terna's **Company Qualification Committee**, which consists of eleven members of the Top Management and an independent external Chairman with recognized legal and technical expertise.

PROCUREMENT AND SUPPLIERS	2011	2010	2009
No. of suppliers under contract	2,314	2,316	2,308
Procedures adopted for awarding contracts ⁽¹⁾			
European tenders	51	53	58
Non-European tenders	35	35	27
Without tender	14	12	15
Qualification			
Companies qualified for entry in supplier register ⁽²⁾	353	260	180
Supplier categories subject to qualification	41	40	36
% purchases from qualified suppliers ⁽³⁾	43	48	39
No. of monitoring	749	593	263

(1) This is the percentage on amounts awarded excluding non-traditional activities.

(2) Considering also the qualified companies that are associated in consortiums, in 2011 the total companies qualified for entry in the supplier register would equal 372.

(3) Only orders with amounts of over 500,000 euros.

Sustainability in criteria for awarding tenders

Vehicle Fleet Tender

As part of the tender for purchasing the operational vehicle fleet, the criteria for awarding the technical points also included the best vehicle performance based on eco-sustainability. The aspects rewarded included criteria regarding **Antipollution Approval** (EURO 4/EURO 5), **Consumption – C (liters/100Km)** and **Emissions – E (CO₂ (g/Km))**. The companies awarded the tender were also requested to provide a **forestation certificate for total neutralization of the pollution produced from the total of the vehicles** included in the tender (see also page 137 of the chapter Environmental responsibility).



Ticket Tender - Meal plan

Awarding the tender for supplying tickets and meal plans included among the aspects rewarded implementing ecosustainable **Projects**.

Supplying furniture and furnishings

Awarding the tender for supplying furniture and furnishings is based on the most competitive offer. The technical points will be awarded on the basis, among others, of demonstrated “Ecosustainability”, including in the technical documentation envelope the following documents: ISO Certifications, FSC Certification, Ecologic Panel Certification, etc.

Tender for architectural planning and designing of the new power station in Capri

In areas having a particular landscape value, Terna specifically focuses on the environmental impact and on installing its works in the ecosystem. Within this context, the tender for the architectural planning of the new power station in Capri was of particular interest and all the most prestigious architectural firms were invited to participate. The project’s predominant requirements that were rewarded, were “the project’s reduced landscape impact” and the “completeness and analytical aspects of the landscape impact analysis”, in addition to aesthetic and functional aspects. Special attention was devoted to selecting materials and details proposed, that not only met specific architectural choices, but were also aimed at reducing building site time frames as well as maintenance.

Even the choice of the “greenery”, that is the second natural element on which the project is inspired, included typical vegetation belonging to the local ecosystem that favored the use of evergreen shrubs and plants to guarantee the constant mitigation effect during the year and reduce maintenance activity. The planned irrigation system allows optimizing the use of water without waste.

Contract work

Considering the use of external labor on Terna's construction sites (see page 118), contract work is subject to stricter rules regarding qualification and subsequent management. This is due to Terna's particularly scrupulous approach, as well as to the strictness of regulations.

Italian law requires Terna to perform an analytical assessment of the risks regarding the health and safety of the workers employed by contractors and subcontractors for all the work done on the construction site. This risk analysis must be performed by an external expert. It should be emphasized that the consequent assessment of the cost of the safety measures to adopt is excluded from the price competition for the contract award.

With the objective of further reducing the risks regarding contract work, Terna requires additional specific certifications concerning contractor employees, such as:

- certification that they know Italian, so as to ensure their access to information on construction site safety;
- on sites, for the construction of overhead electricity lines, certification that all the workers (mainly blue-collar ones) have examined and have been appropriately instructed on the use of the personal protective equipment, the risks established in the Construction Site Safety Plan ("PSC") and the Operating Safety Plan ("POS") prepared by Terna, and the environmental protection measures as established in the specific operating procedure called "Management of the environmental aspects during plant construction", which is attached to each contract;
- for several specific roles (e.g. workers assigned to the installation and maintenance of overhead lines and to cutting vegetation, foremen, and safety heads), certification of specific training courses lasting between 24 and 32 hours designed – according to the content required by Terna – in cooperation with SINCERT-certified training schools specialized in the electricity industry;
- verification of the actual training of the personnel through a web platform – the Qualified Company Personnel project – which records the actual training of the personnel of the companies doing contract work on Terna's construction sites by comparing the information provided by the schools authorized to train personnel for work in the electricity industry with the names of the employees registered by the companies;
- the appointment of a person in charge of Health, Protection, and Prevention ("RSPP"), a head of construction-site safety, a person in charge of managing emergencies and his or her substitute, and an assigned doctor.

To reduce as much as possible the risk of violations of human and labor rights to the detriment of contractor employees Terna also requires:

- a declaration that the collective-bargaining labor agreement is applied to all employees;
- certification that all social-security and other contributions have been duly paid;
- a copy of an insurance policy covering third party liability, personal injuries, and damage to property, including the contractor's, for the entire duration of the work and in an amount appropriate for the kind of work performed;
- a periodical copy of the payment of social-security and other contributions;
- certification by the competent doctor that the contractor's employees are fit for their jobs.

Monitoring has enabled Terna to identify the areas that are most exposed with regard to the issue of occupational safety. For companies operating in these areas, in addition to the activities already described, there are provisions for assistance in interpreting the law and in communicating during safety training for workers.

In 2011, Terna monitored 100 sites entrusted to contractors for the construction of lines and stations for electricity transmission (see also "Occupational health and safety", page 169).

The construction sites were chosen with regard to the duration of the work, considering that work that lasts longer is probably more complex.

EU16

EU18

HR2

LA4

Relations with companies using the electricity service

Terna mainly deals with companies operating in the electricity industry and belonging to one or more of the following categories:

- **owners of grid segments**, to which Terna must guarantee the right to connection in compliance with regulatory and technical provisions;
- **dispatching users**, i.e. producers, end customers, or wholesalers with which Terna regulates the dispatching service;
- **interruptible customers**, i.e. end customers of withdrawals that grant Terna the right to interrupt their load;
- **distributor companies and owners of production plants**, with which Terna regulates the electricity transmission service along its grid.

Relations between the industry companies and Terna are mainly regulated by the industry Authorities and are defined technically and commercially in the Grid Code.

In particular, with regard to the dispatching service, Terna regulates with the users of the injection dispatching service the economic items regarding the **procurement of the resources necessary to safeguard the security of the national electricity system**, thus maintaining a balance between injections and withdrawals, as well as ensuring that grid parameters, such as voltage and frequency, are at their appropriate levels.

EU3 The economic items regarding procurement on the dispatching service market (“MSD”) and imbalances for injection users are negative and in 2011 amounted to nearly 1.2 billion euros.

With the users of both injection and withdrawal dispatching, Terna regulates the economic items regarding imbalances, understood as the difference between the plans the users presented on the electricity markets and the actual value of the electricity injected or withdrawn.

The economic items regarding imbalances for withdrawal users, including the invoicing of system charges, are positive and in 2011 amounted to nearly 2.4 billion euros.

The most important interactions with electricity companies are managed through My Terna portal, which is the sole channel of access for all the services dedicated to the electricity companies, such as master data management – so that the portal is supplied through the data managed by the Gaudi system (see following box) – connection requests to the NTG, contracts stipulated for dispatching, the management of contacts and viewing the operator’s main data.

It includes a front office and a back office controlled with a single instrument that enables processes to be traced and the progress of paperwork to be monitored, following an e-ticketing logic.

In 2011, Terna procured resources for **the interruptibility and instant-load-reduction services** aimed at making the operation of the national electricity system secure in the event the resources procured on the market turned out to be insufficient. There were nearly 170 assignees of the interruptibility and instant-load-reduction services in 2011, with nearly 4,362 MW of power, and the related negative economic item amounted to nearly 650 million euros on an annual basis.

RELATION WITH TERNA OF COMPANIES OPERATING IN THE ELECTRICITY INDUSTRY- NUMBER OF COMPANIES

Companies	2011	2010	2009
Interruptible users ⁽¹⁾	171	154	134
Distributors directly connected to the NTG	20	19	19
Injection dispatching users (Producers and traders)	91	86	77
Withdrawal dispatching users (Traders and end customers, including the Single Buyer)	110	109	106

(1) Beginning in 2011 these also include the assignees of the instant-withdrawal-reduction service.

Master data of electricity production plants started

In 2011, Terna was involved in initiating and implementing the Gaudi system (plant master data management). The system, whose creation was planned by specific provisions issued by the Electricity and Gas Authority, allows transmitting all master and technical data of the plants and of the electricity production units. The purpose is to centralize within the transmission system operator the master data of all the production initiatives implemented and in progress across the national territory, independently of plant size and type, ensuring the constant update of information. In particular, the Gaudi system attributes a code to each production plant that allows uniquely identifying the plant by all the bodies that operate in the electricity system and that, each one for its own purposes, establish contact with the plant (i.e., Terna or the distributors for connection purposes, the GSE for any incentive purposes, Terna for dispatching activities purposes, etc.).

This centralized platform also organizes the information flows among the various bodies that operate in the sector with the objective of avoiding the duplication of information reports required for the operators.

Effective as of January 2011, Gaudi was created by integrating three principal master data archives managed by Terna: CENSIMP for conducting a census of the plants, RUP relative to the master data of the Significant Production Units ⁽¹⁾ and UPN6 relative to the master data of the non-relevant Production Units.

With subsequent releases scheduled during 2012, the system will be further updated with new functions principally aimed at implementing a control dashboard capable of monitoring the sequence of activities involving the access to the production plants system: from the plant's "physical" connection up to the injection of energy produced into the grid.

The various bodies that operate in the electricity system will be called to contribute, each one according to its field of activities, to the master data validation process in order to create transparent access of the electricity production plants to the system services.

(1) Significant production units are the production units with a total production power of the associated generation groups not lower than 10 MVA.