**Engineering, construction** and maintenance of electrical, mechanical and instrumentation infrastructures for the energy, industrial, transport and services sectors. Development, construction and operation of industrial plants, conventional power plants (cogeneration and combined cycle) and renewable energy facilities (bioethanol, biomass, wind, solar, geothermal), as well as those based on hydrogen and fuel cells. **Turnkey** telecommunications networks and projects. Merchandising of products related to aforementioned activities as well as manufacturing of auxiliary elements for energy and telecommunications.







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The year 2003, like last year, has been characterized by the slow down in the world's economy. This fact, although our national growth has not been affected like in the rest of the countries, has demanded a greater flexibility to adapt ourselves to a less favorable environment and to obtain the maximum of profits.

The fiscal year has been highlighted by a series of significant events: greater internalization of our activities in the areas where we have presence: Power, Installations, Communications and Marketing; developing of new markets: Eastern Europe and North Africa; and an increase in our productivity, by which we have reached a 10% growth rate with respect to 2002.

The development of our branches and the extension of our activity in new markets, along with maintaining our important presence in Spain and Latin America, has allowed us to establish the basic pillars for our growth in the coming fiscal years.

During the year we have continued to keep our commitment with the environment by developing innovative projects both in solar energy as well as in the hydrogen and fuel cells sector.

In the following, we point out the major achievements obtained in each one of our areas of activity: Power, Installations, Communication and Marketing.

### Power

This year has meant the consolidation in the development and construction of significantly important and technically complex projects, that permits development of activities which are compatible with the environment.

It is worth noting the finalizing of the construction project of the second European plant of straw use for energy purposes (biomass), in Sangüesa (Navarra), and the beginning of the construction of a bioethanol plant in Babilafuente (Salamanca), which will have the largest capacity in Europe.



Presence has been intensified in the area of generating stations, having our reconditioning and combined cycles projects special importance in Mexico

Within the research and development of new products related to solar energy, engineering work has concluded to start construction, in 2004, of a 1.2 MW double concentration photovoltaic plant and a 11MW thermal solar plant.

Likewise, in Abengoa's strategy in the hydrogen and fuel cells field, a company has been established with the purpose of producing clean hydrogen from sources respectful to the environment and to use fuel cells for the production of electrical power.

With the development of these projects, an advancement in technological innovation is being produced that is compatible with the environment and is providing a solid base for new endeavors to be undertaken in 2004 and in the following fiscal years.





### **Abener**

Abener Energía S.A., company leader in the power area of Abengoa's Industrial Engineering and Construction Business Unit, has completed an intense process in revising its strategic plan and implementing strategic actions, which have made it an important player worldwide in the supply, turnkey, of integrated and innovative solutions in the area of power generation and integral utilization of biomass.

Abener has definitely consolidated its presence in Mexico upon having finished the enlargement process at 450 MW in combined cycle of the thermal power station of El Sauz and contracting, in July, a new enlargement project to 230 MW in combined cycle at the Hermosillo thermal power station.

In the national market, our activities stand out in the power sector; the delivery of the plant for the utilization of straw for energy purposes, of 25 MW, world pioneer in this sector, at Energía Hidroeléctrica de Navarra (EHN); and the start of the construction of the auxiliary systems of the Iberdrola combined cycle thermal power station in Arcos de la Frontera, (Cádiz). Likewise, the year that has just passed confirms, in the national market, our leadership in

the construction of industrial plants for the production of bioethanol. Construction of Biocarburantes de Castilla y León has already started and will have a nominal production of two hundred million liters per year.

Major accomplishments:

## Enlargement to 450MW in combined cycle of the thermal power station at El Sauz (Mexico)

The provisional reception of the installation was achieved following a test in which the plant operated nonstop during 360 hours. It was constructed under the turnkey mode for the Comisión Federal de Electricidad (CFE) in the Pedro Escobedo township in the State of Querétaro.

The project comprised the conversion to combined cycle of two existing Siemens—Westinghouse turbogas units which added a net capacity of 143 MW. To carry this out, the exhaust gases from these two turbines were used and were canalized to the two new heat exchangers. The steam produced is principally used to drive a new steam turbo-group meant for the production of electricity.



### Enlargement to 230MW in combined cycle of the Hermosillo (Mexico) thermal power station

In order to meet the need for the growing demand for electrical power in Mexico, the Comisión Federal de Electricidad (CFE) awarded Abener the turnkey construction of the enlargement project to combined cycle of the Hermosillo thermal power station located to the northeast of the city of Hermosillo in the State of Sonora.

The Project comprises the conversion to combined cycle of one existing Siemens-Westinghouse turbogas unit, thus adding a net capacity of 88 MW. To carry this out, the exhaust gases from this unit will be used and will be canalized to a new heat exchanger. The steam produced will be used mainly to impulse a new steam turbo-group meant for the production of electricity. The steam exiting from the turbine condenses into a new aero-condenser, largely reducing the station's water consumption with respect to the conventional cooling tower. The plant, that has its first synchronization programmed in April, 2005 and its provisional reception by the CFE in May 2005, represents Abener's guarantee in the thermal power station's reconditioning sector in Mexico.

# Auxiliary Systems of the Arcos de la Frontera combined cycle station, Groups I and II, in Cádiz (Spain)

Iberdrola Generación awarded Abener the turnkey construction of the following systems: refrigeration, water treatment, ERM, compressed air, auxiliary boiler, 6 kV cabins and low voltage frames at the Arcos de la Frontera thermal power station, Groups I and II, of 1,600 MW.

The station's project is a unique project that takes into account the installation of the station in two 800 MW blocks, slightly displaced with time.

It is programmed to be finished in July 2004.

### ETBE Plant, Huelva (Spain)

The construction work continuous for the company ETBE Huelva S.A., of a plant that produces 34,028 tons/year of ETBE. It is a compound presently used in gasoline as an antiknock agent substituting lead in the refinery that Cepsa has in La Rábida (Huelva). The ETBE manufacturing process is based on a

etherification reaction of isobutenes and ethanol in the presence of a catalyzer. The Cespa refinery provides the utilities necessary for the manufacturing process: power, steam, water, etc. The plant is being constructed in a lot near the FCC unit of the refinery. The area is approximately 400 m² and the refinery's current installations have been taken into account.

It principal characteristics are: production of 34,028 tons/year of ETBE; consumption of 123,270 tons/ year of butane and 15,372 tons/year of ethanol. The provisional reception of the plant is programmed for the second quarter of 2004.

### Bioethanol plant in Babilafuente, Salamanca (Spain)

The construction of a bioethanol plant started in October in Babilafuente, Salamanca for the company Biocarburantes de Castilla y León S.A. The time limit for the construction is 26 months. It is the third bioethanol plant that we constructed in Spain under the turnkey mode and which will have the largest capacity in Europe. It will have a production of 200,000 m³ a year and it will be the first to use the bioethanol production technology from biomass.

Its principal production characteristics are: 200,000 m³/year (25,000 liters/hour) of ethanol, 253,000 tons/year of DDGS (fodder for animals) and 200,000 MWh/year of electrical power.

This project reinforces Abener's leadership in the design and construction of ethanol plants from cereals and biomass.

### Plant for the exploitation of straw for power purposes in Sangüesa, Navarra (Spain)

Abener, as part of the Abengoa-FLS Miljo consortium, has constructed under the turnkey mode a plant for the use of biomass power for the company Energía Hidroeléctrica de Navarra (EHN), located in Navarra de Sangüesa.

This plant, for the exploitation of energy from biomass, is the first in its class constructed in Spain and the second in Europe. It uses as a fuel base cereal straw, making it also possible to mix it to 50% with low quality wood.





The principal characteristics are: production of 216,000 MWh/year of electrical power and consumption of 160,000 tons/year (20,000 Kg/hour) of biomass

The plant started functioning in 2003.

### Solúcar

Solúcar has consolidated the development of its products related to solar energy, maintaining its position as a national and international leader in providing services and specific components for solar plants

Among the most outstanding references of the year, we can mention the supply of facets for the complete renovation of the Weizzman Institute heliostat field in Israel, the promotion activities of solar applications in the Aznalcóllar TH project for the economic and social recuperation of the mining territories, as well as the tasks related to the promotion of the Sevilla PV plants – double concentration photovoltaic and 1.2 MW power– and Sanlúcar Solar –thermoelectric tower and 11 MW power–.

### Sanlúcar Solar, S.A.

Sanlúcar Solar has as its purpose the construction and exploitation, in trading arrangement, the largest solar power plant constructed that uses tower technology and heliostat fields. The 11 MW power output plant will be located in the township of Sanlúcar la Mayor (Sevilla) and it will have 624 heliostats or 121m² mobile mirrors that reflect solar light on a receptor that is situated on a 90 meter high tower. It will generate about 24GWh of electricity a year and which will be evacuated to the power network as a production installation under the Special Tax Regime.

At the end of the year engineering work concluded and the negotiations to endow the financing initiative prospered under the project finance mode.

### Sevilla PV, S.A.

Sevilla PV has as its objective to construct and operate, in commercial regime, a photovoltaic solar power plant of 1.2 MW power. The double concentration and two axis sun tracking plant will





produce around 2.4G Wh a year of electricity. It will be evacuated to the power network as an production installation under the Special Tax Regime.

The plant has 170, 100m² aperture close tracking devices, that combine, at approximately equal parts, the photovoltaic and mirror modules catchment area. At the end of the year engineering work concluded and the negotiations to endow the financing initiative prospered under the project finance mode.

### Hynergreen

Hynergreen Technologies, S.A. was incorporated in 2003 to impulse technologies related to hydrogen and fuel cells in Abengoa.

It is organized in two divisions (I+D+IT and Projects). It is primarily oriented to Investigations and Development, having as its principal objectives the following:

- New applications of fuel cells, using different technologies. Installations for telecommunications, residential and stationary applications and transportation.
- Development of new fuel cells: reversible, compact
   and direct.
- Production of renewable hydrogen as well as its treatment, purification, storage and posterior use.
- Integration of renewable energy sources such as solar or wind with the "Hydrogen Vector".



Located in Sevilla, it has a test facility and fuel cell characterization and advanced hydrogen technologies.

Hynergreen participates in the fuel cell normalization technical subcommittee that pertains to the Aenor electrical power production normalization technical committee (aen/ctn206/sc105). Included in this subcommittee are work groups 3, 4 and 5 which are associated to fuel cell stationary applications. It is also ascribed to the Cenelec European Committee BTTF-109-3: "Fuel cell gas appliances" and to Technical Committee No. 105 (TC105) of the International Electrical Committee (IEC), in Working Groups 3 ("Stationary Fuel Cell Power Plants: Safety") and 5 ("Stationary Fuel Cell Power Plants: Installation").

In spite of having less than a year of activity, Hynergreen has already signed a large number of agreements and contracts with investigative Public Organizations and external technology agents for the procurement of technology and oriented to establishing alliances with important national and international experts.

### **Nuelgas**

Nuelgás carries out its activity in the hydrocarbon investigation and operating sector.

Currently it is operating three electrical power generating plants with a total of 12 MWe of power installed. Two of them are in concession operation «El Ruedo 1, El Ruedo 2 and El Ruedo 3», each one having 3 MWe and named «Las Balbuenas» and «La Viñuela», in the townships of Écija and Fuentes de Andalucía (Sevilla) and that operate boring Córdoba C1A and Córdoba B2. The third plant, which is in concession operation, «Las Barreras», with an approximate power of 6 MWe, operates boring in San Juan V1 and San Juan V6.

Furthermore, it has 25% participation in the «El Romeral1», «El Romeral 2» and «El Romeral 3» concessions, where they are operated in a plant with an installed power of 8 MWe, four borings named «Sevilla-1», «Sevilla 3», «El Ciervo» and «Santa Clara»

In the concession operations «Marismas B1», «Marismas C1», «Marismas C2» and «Trebujena», where Nuelgás participates with 15%, boring production continous in «La Cerca» and «Z3-St», drilled in the year 2000.

After the seismic campaigns carried out in 2002 at concessions «El Ruedo 1, 2 and 3», there was a geological structure with possibilities of containing hydrocarbons. This structure, named «El Zorro», will be drilled during the first semester of fiscal year 2004



### Installations

Installations Inabensa, S.A., a leading company in the installations area of Abengoa's Industrial Engineering and Construction Business Unit, has significantly surmounted the objectives of the contract, its sales and its result's by consolidating its international position and increasing its productivity.

Apart from the important increase registered in national activity, in the framework of the traditional sectors, the securing of new and important projects in Central America, North Africa and Eastern Europe has assumed its consolidation as a service and goods export company of equipment directed mainly to the creation of infrastructures in the Energy, Industry, Environment and Communications sectors.

Included in Inabensa's remarkable performance of its activity abroad during 2003, we can point out to its outstanding participation in the rural electrification in countries such as Kenya, Tanzania and Morocco, the electric wiring of more than 3000 kilometers of OPGW cable in Rumania, the creation of a new infrastructure of power distribution in San José de Costa Rica, the electrification of 250 kilometers of railroad in Turkey and the design, manufacture and supply of cabins and switchboards for the Damietta station in Egypt and El Sauz in Mexico.

At the national level, among an extensive number of references, its important participation in the electromechanic installations of buildings and singular works stand out, such as the Forum 2004 Photovoltaic Plant in Barcelona, the building complexes in Granada and Málaga for the Andalucía



Autonomous Government and the Aena air control center in Barcelona. Also to be mentioned is the contracting of the AVE Segovia-Valladolid substations and catenary and the telecommunications system, traction subsystems, receiving substations and power distribution systems for line 9 of the Barcelona Underground.

### Inabensa

Inabensa has continued with its marked ascending line based on the strict follow up of its Strategic Plan quidelines.

The contracts have been over 373 million Euros, which means a 20% growth over last year, thereby consolidating our leadership position in important sectors such as High Speed in Spain and internationally making our presence stand out in North Africa. Sales are over 300 million Euros.

The adaptation of the Quality System to the UNE-EN ISO 9001:2000 norms requirements is complete and thus Aenor's corresponding certification for Inabensa, Inabensa France and Inabensa Portugal.

At the same time and in the scope of Inabensa's certification, the integration of the Communications Division and of Protisa in the Inabensa Quality System has been carried out by incorporating both to Inabensa during this year.

The Environmental Management System was renewed pursuant to norm UNE-EN ISO 14001:1996 for the activities and installations in the Manuel Velasco work center in Sevilla, including the Manufacturing Workshop, the General Store and the Vehicle Fleet.

The control of the application scope of the Legma environmental legislation was extended. It was developed by the Quality and Environment Management Department and which included the municipal ordinances where Inabensa usually carries out its activities.

As far as Prevention and Safety, a new system of continuous integral training has been put into practice and developed according to the study of



specific activities performed by the company's different departments. The system comprises the preparation and giving of Courses to the work personnel according to the tasks they carry out in their work areas. The adaptation process to the Occupational Hazards Prevention system to international norm OHSAS-18001 has started.

We want to point out that the accident rate reduction in the company compared to last year decreased in 12.67% in the Incidence Index and 27.75% in the Seriousness Index.

We also have to point up the start, continuation and conclusion of the following civil works during this year:



#### **Electric Installations**

In the power sector the diversity of works and clients must be highlighted. Among them the electrical wiring of second circuits of the lines at 400 kV Cartelle-Lindoso and Valdecaballeros-Guadame for REE; the support reinforcements and changes of the conductors from single to duplex in line at 132 kV Oliva-Verger and Verger-Jávea for Iberdrola; the burying of the line at 400 kV San Sebastián de los Reyes-Loeches-Morata affected by the Barajas Plan for REE, which additionally consisted of archaeological actions.

OPGW wire laying, with live electrical installation for REE in the lines at 400 kV Puentes-Montearenas and Don Rodrigo-Guillena.

Supply and assembly of substations along all the national territory and for several power companies: 66 kV Sa Pobla and the enlargement of Son Molinas for Gesa, 132/30 kV Burela for Electra de Viesgo and three for the enlargement of AVE for GIF.

In the environmental sector, the execution of the connection lines and electromechanical installations in several desalination plants: San Pedro del Pinatar for Abensur, EDAM Las Palmas III for the Consejo Insular de Aguas in Gran Canaria, Atabal in Málaga for the UTE Abensur-Degremont.

In the industrial sector, the installation and assembly of equipment and lines of Medium and Low voltage in several manufacturing plants: Pirelli in Vilanova, Saint Gobain in Zaragoza and Spanish Pelagic in Las Palmas. The works executed for the automobile sector are also very important (Citroën, Fasa Renault and Ford)

In the service sector the improvement and remodeling of the amusement installations and offices of the Parque de Atracciones in Montjüic, Barcelona and the Auditorium of Abanillas' City Hall.

We also have participated in symbolic works of development and cultural importance: The Bilbao Trade Fair, Photovoltaic Plant for the Barcelona 2004 Forum and the BSCH Financier Campus.



In the transport sector, electrical installations for the Aena enlargement and renovation program: air traffic control at Gavá in Barcelona and power stations at the Barajas Airport; installation of sub-stations in the Alicante Airport and supply and installation of electrical units at the Gran Canaria Airport.

Concerning the Subway (Metro) we highlight the works executed for Mintra (Madrid Transport Infrastructures) corresponding to the project of supply, assembly, ventilation and distribution of power for the extension of the Metrosur lines and the contracting of the telecommunication system, traction substations, receiving substations and power distribution systems in line 9 of the Barcelona Metro.

It is also significant our participation in large public works such as the facilities of the Health Campus Hospital Complex in Granada, Ciudad de la Justicia in Malaga and Almanjayar Building for the Andalucia Council and the new building for the local police in Huelva.







#### **Mechanical Installations**

Prefabrication and assembly of pipes and equipment for the storage and supply to the ETBE Refinery plant La Rábida (Huelva). Supply, prefabrication and assembly of the pipe system in the new Brenntag Quimica plant, a world leading company in chemical distribution in Dos Hermanas (Sevilla).

Dismantling, moving and assembly of the heavy machinery from EADS Casa facilities in Cadiz to the new factory in Puerto Real. Pipe assembly in service tunnels of the new Barajas Airport terminal and mechanical assembly of the refrigeration systems in Arcos CCPP for Iberdrola.

### Insulation/Refractories/Fireproof Passive Protection

Repair of the refractory coating of shutdown furnaces and equipment at the B.P. Oil refinery in Castellón. Works for the improvement of the ventilation and soundproofing of the Unelco station in Punta Grande (Lanzarote) and Salinas (Fuerteventura). Thermal insulating works in the Repsol YPF «Mild Hydrocracker y Azufre» Plants at the Puertollano Refinery and fireproofing works of the metal structures, cradles and skirts equipment in the last generation fuel plant at the Castellon Refinery for B.P. Oil.

### Instrumentation and Maintenance

Power and instrumentation maintenance at the thermoelectric station of the nuclear power station in Almaraz, Trillo and Cofrentes and the Elcogas' IGCT, as well as the supply, assembly and start up of the control and instrumentation system for carbon handling and unloading operations in Los Barrios

In the service sector the offices and facilities maintenance activities has been very important: Torretriana for the Andalucia Council, BBVA office





network in West Andalucía and Granada, branches of Savings and Loan Bank and Monte de Piedad in Madrid in the South Zone and the Savings and Loan Bank offices of San Fernando in Sevilla.

In the industrial sector, the maintenance of facilities such as La Rabida refinery for CEPSA and the Enagas Plant in Huelva. Also the instrumentation assembly for industrial plants: Lexan 2 for GEP, I.A. in Rota and Cartagena for CLH, ETBE refinery La Rabida and antibiotics Vitatene in León.

### Communications

We have carried out special work in mobile telephony such as the construction and merging of Base Transmitter Stations (BTS) for Amena, GSM-R infrastructure network for Siemens, security systems in the Ministry of Defence RCT towers, mobile telephony base facilities maintenance for Telefonica Móviles and antenna towers for Retevisión.

The infrastructure installation is being carried out for mobile telephony in AVE Madrid-Zaragoza-Lleida Line that consists of 41 Base Radio Stations (BST) locations, thus achieving for the first time that each location is ready to meet the current mobile telephony operators needs. Additionally, there will be a fourth operator in reserve.



### **Manufacturing Workshop**

36, 20 and 6 kV cabins and power panels for generation clients and industrial plants: wind power Do Vilán for Soluciona, CCPP in Santurce and Arcos de la Frontera, Repsol, Puertollano and La Coruña, Enagás in Palos de la Frontera.

Relay framework, control panels and auxiliary services for Red Electrica Sub-Stations in Compostilla, Litoral, Puerto de la Cruz, Montearenas, Catelle, Ciero, Valdecaballeros, Don Rodrigo, Arcos and Palos de la Frontera. Protection frames for CLH in Rota, Algeciras, Córdoba, el Arahal and Adamuz.

Air traffic control electronic equipment and road pricing, vending machines, bill validity and cancellation machines, subway turn slides and parking areas for Telvent Tráfico y Transportes. Equipment for remote control systems for Telvent Energía y Medio Ambiente.

In suburban railroads, 1500 V d.c. electrification and power distribution for Metrosur and the Móstoles 1–Fuenlabrada 1 and Fuenlabrada 2-Getafe 2 road sections for Mintra (Madrid Transport Infrastructure).



### Railroad

For RENFE, additional work and interventions in the contact air line in the Corredor del Mediterráneo, Oropesa-Vandellós route. Those which stand out are the electrification in the AVE Madrid–Sevilla line of 3 kV, d.c. to 25 kV, 50 Hz, a.c. and the High-Speed Northeast Corridor (Corredor Noreste de Alta Velocidad) in (Road Section Zaragoza – Huesca) .



#### Abroad

We should highlight the project to improve and develop the electrical system of the city of San José de Costa Rica via the extension of a 138 kV line, the construction of three substations, subterranean channeling, distribution and connection and final user connection.

In Nouakchott (Mauritania), as part of the Ministry of Water and Energy's project to ensure the supply of petroleum products, we carried out the engineering, supply and construction of a petroleum product storage area with 60,000 m<sup>3</sup> capacity, including the unloading berth for tankers up to 15,000 metric tons.

For Turkish State Railways (TCDD), the electrification of 80 kilometers of twin track, the construction of traction substations and the system of remote control and communications.

The supply of a track polishing machine for Tianjin Binhai Mass Transit Development (China).

We contributed to the renovation and extension of the electricity and communications systems of other countries: the supply and rehabilitation of 300 kilometers of 225 kV lines for the STEP (Morocco); the supply and assembly of 3,000 kilometers of composite ground wire optical fiber (OPGW) and renovation of associated lines for the National Energy Transmission Company (Romania), the extension and improvement of the rural electricity network in Kenya for Kenya Power and Lighting Co. Ltd.; the supply and installation of low and medium voltage lines, 66/33 kV substation, low voltage distribution points and submarine cable in Tanzania for the Tanzanian National Electricity Company – Tanesco.

In manufacturing, consoles for the control room, remote shutdown panels and neutron monitoring for unit 1 of the Lugmen nuclear power station in Taiwan.

### Inabensa Morocco

Four contracts with the National Electricity Office (ONE) have been completed within the framework of the global rural electrification program which has

supplied electricity to a total of 100 villages in Morocco. In addition to these contracts, another two contracts are being implemented with twelve more villages being supplied with electricity during this period. Equally, Inabensa Morocco has been awarded five new rural electrification contracts to supply electricity to a total of 108 villages in the country's northern and southern areas.

In the context of the development of the mobile telephone network for Meditelecom, phases 7 and 8 of the construction of rural and urban GSM mobile telephony base stations via Siemens S.A. and four SDH sites. At the present time a total of 117 sites have been commissioned (including both greenfield and rooftop locations).

The electrical works for the new Spanish embassy in Rabat, which was opened last December, have been carried out for the construction company OHL.

### Inabensa Bharat

The principal objective is to get established in the electricity market in India and support Inabensa in the execution of international contracts.

The civil works related to the provision and construction of the 230 kilometer Raipur-Kanaktura double circuit 400kV line, part of the East-West transmission system in India, have been completed for Power Grid Corporation.

Work has also begun on the contract awarded to construct the 400 kV Korba-Raipur electricity transmission line.

### Inabensa France

Signature of the 2003-04 biannual framework contract for electricity transmission lines for the national electricity company (RTE), with the construction of 10 electricity lines throughout France being of particular note.





#### Communications

Restructuring of activities with the Business Group was completed, with Abentel continuing its classic activity of constructing and maintaining external plant and the providing of circuitry and equipment to clients

### **Abentel**

Work arising from the global contract (2002–2006) with Telefónica de España S.A.U., was similar to last year in terms of volume of works placed and provincial locations given that we already have a presence in ten provinces (Alicante, Badajoz, Barcelona, Cadiz, Gran Canaria, Jaén, Madrid, Seville, Tenerife and Valencia).

Amongst the innovative features of this contract should be noted the fact that a significant part of the remuneration is obtained on the basis of the quality achieved, which relies very strong effect on the final customer's appreciation of our services. We have received very high marks in the indices measuring this aspect and have achieved excellence level in the last three quarters in all the provinces where we are active. This is a result of the policy introduced in the last financial year and developed during the present year aimed at achieving high levels of quality and customer satisfaction.

From the activities in which we have participated, we would highlight:

Consolidation of project integra and one of its most significant innovations: the dispatch and completion of work orders by mobile telephone with GPRS technology.

Creation of groups made up of personnel of different levels and specialties in order to analyze processes and opportunities for improvement. As a result of these analyses, improvement initiatives will be introduced with the establishment of objectives and active pursuit of results. 212 objectives were planned



for the present financial year in the different branch offices with 75% of these objectives being reached.

Centralization of fault repair dispatch into a single work distribution office for all activities and for all of Spain and the establishment of a call centers where we will attend to requests for technical assistance and monitor customer opinion about the work performed.

The dispatch tool Integral Activity Manager (GIA) developed by Telefónica is used for dealing with faults and has given us excellent results.

Our involvement with our clients in different pilot plans, such as the optima plan is allowing us to achieve greater levels of efficiency – productivity and quality—in the ADSL activity.

Our cable operators department has continued to execute plant maintenance and supply operations for the mobile phone operator Auna.

### Marketing

We are still the leading suppliers in Spain of electrical equipment in the areas of instrumentation and communications for the chemicals, energy, telecommunications and industrial sectors.

The structure of the business, based on its vocation for service and providing the highest quality, allows us to maintain a stable presence in our usual markets

and to identify and take advantage of the opportunities offered to us.

In accordance with our growth strategy, we have strengthened our presence in international markets: our subsidiaries in the United States and Mexico have amply met their planned objectives.

Similarly, we are driving forward the execution of turnkey projects and developing new services, such as procurement logistics and outsourcing of warehousing. In this respect, we should mention the warehouse management activity we carry out for Endesa, REE and Repsol Butano.

### Nicsa

Maintains its leadership in Spain and is strengthening its international presence as a supplier of electrical equipment in the areas of instrumentation and communications for the chemicals, petrochemical, refineries, combined cycle, nuclear and thermal power station, telecommunications industries and heavy industry in general.

Some of our most significant achievements this year include:

### **Projects in Spain**

Supply to Repsol YPF–Mild Hidrocracker, Puertollano Refinery– earth connection, channelling, medium and low voltage cables, control and instrumentation cables, distribution boxes, command and control stations, electrical sockets, cable seals, lighting panels, loudspeaker and communication system (turnkey), busbar conduits (turnkey), electrical wiring of tanks (turnkey) and direct current compounds.

Supply to Técnicas Reunidas–Endesa, C.C. Granadilla de Abona (Tenerife), earth connection, instrumentation cables, medium and low voltage cables, conduit, cable seals, lighting system (turnkey) and distribution panels.

Supply to B.P. Oil, Castellón Refinery, of earth connection, high, medium and low voltage cables, instrumentation cables, tray, lighting, distribution boxes and cable seals, switching yards, electrical sockets, surge diverters, motorized valve panels and instrumentation installation equipment.

Framework agreement with Cepsa to supply electrical equipment and instrumentation for all its production centers. The most notable completed projects are the extension of the wharf at Algeciras, the enlargement of FCC Algeciras and the Algeciras HDS 5 plant. The equipment included in the framework agreement are, amongst other items, medium and low voltage cables, instrumentation cables, lighting, switching yards, electrical sockets, tray, distribution boxes, cable seals, manometers and thermometers.

### **International Projects**

Supply to Intecsa Uhde–Technip France–Cymi, Ute Pampilla España, Visbreaking, vacuum. Merox and acid waters treatment units and, for Repsol YPF, La Pampilla (Peru) medium and low voltage cables, instrumentation cables, lighting, switching yards, electrical sockets, earth connection, condenser batteries, trays, surge diverters, instrumentation and conduit installation equipment.

Supply to Dragados Offshore and PEMEX, Project EPC 78B, AKAL L production and compression platform, conduit and accessories, lighting, beacon systems, UPS, battery chargers, communications systems (public address system, telephony, data network), instrumentation tray, earth connection, low voltage cable, distribution boxes and presses, earth connections and switching yards.



### **Abencor**

Abencor has excelled itself in reconciling its traditional business of selling electrical and electronic hardware with new lines of business of which solar energy is amongst the most notable.

Similarly, it continues to provide warehouse outsourcing services to different companies who have entrusted this management service to us.

Amongst the principal projects we have been awarded, we should mention:

Two 12 MVA encapsulated transformers for the Enel Viesgo's Bahía de Algeciras thermal power station with a special air-water heat exchanger cooling system. In terms of their technology and dimensions these transformers will be the largest of their kind in Europe.

Four 150 MVA autotransformers for the Montetorrero substation and six 40 MVA transformers for Endesa Distribution Aragaon and Catalonia regions.

Supply of fiber optic cables to be installed in the M–50 highway for the Directorate General of Traffic.

High, medium and low voltage cables, as well as submersible isolating switches for the underground electrification of San José de Costa Rica.

All of Abencor's branches have both Quality and Environmental Management certification from Aenor. During the financial year the quality management system has been adapted to meet the new 9001: 2000 standard.

### **Eucomsa**

Eucomsa has achieved a leading position in Spain in its traditional market which is the manufacture of transmission towers and galvanized structures.

It has constructed on its own site a transmission tower test facility which will place us amongst the top tower manufacturers internationally and also allow us independence and fast response times. Testing and perfection of the facility will begin in



January 2004. It will be available for use not only by us but by any client who wishes to conduct its tests at the facility which will be equipped with the highest level technology.

Eucomsa's Structures Division has fulfilled significant orders for the export market. It has manufactured 400 kV towers for various projects and clients in Mexico, such as the LT 407 for Abemex, the LT 506 for Siemens and LT 407 for Elecnor.

In addition it has supplied clients in other countries such as Mauritania, Panama, Algeria, Ireland and Uganda.

RTE (France) has authorized us to construct towers up to 400 kV.

In Spain we have retained a significant market share of REE's requirements both for 400 kV lines and for substations, with the Balboa substation-Portuguese border, Palos Guillena and Nueva Escombreras lines and between the Almazán, Arcos, Siero and Escombreras substations, the latter is currently being manufactured.

The business of the Metal Plate Division has extended its product line to include signaling. We have maintained our usual supplies to customers such as Fujitsu (cash dispensers), Telefónica (fiber optic distribution cabinets) and other customers (and products).