

A low-angle photograph of a tall, white metal lattice tower against a clear blue sky with some light clouds. Two workers in safety gear (yellow helmets, orange and yellow high-visibility vests, and dark clothing) are positioned on the tower. One worker is higher up, near a red ladder-like structure, and the other is lower down. Various cables and mechanical components are visible on the tower's structure.

## Industrial Engineering and Construction

Abeinsa is an industrial and technology group that offers integrated solutions for the Energy, Transportation, Telecommunications, Industry, Service and Environmental sectors. These innovative solutions aimed at contributing to sustainability, enable the creation of value for the group's customers, shareholders and employees, ensuring an international forward-looking projection and return on investment.





## International Presence





## Our business

Abeinsa is an international company specialized in industrial engineering and construction. Its business revolves around six divisions or lines of activity: Energy, Installations, Telecommunications, Marketing and Ancillary Manufacturing, Latin America, and New Horizons. Abeinsa's growth is based on the suitable development of energy infrastructures, on the construction of biofuel and solar thermal power plants, and on sustained growth in infrastructure activities with the greatest added value and a high degree of internationalization.

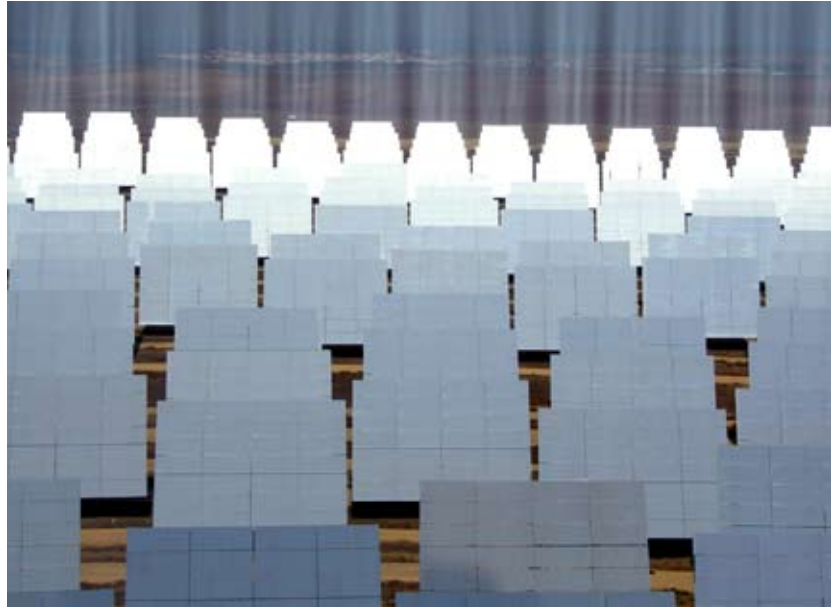
Abeinsa's commitment to sustainable development is evident from the efficiency of its processes and products and its ability to minimize their environmental impact. This places the company at the forefront of technological developments within the industry. Abeinsa provides clean energy solutions and combats climate change on the following fronts:

- Design and construction of power plants based on renewable energies and able to generate thousands of MWh of clean energy.
- Design and construction of biofuel plants that help to reduce CO<sub>2</sub> emissions.
- Design and construction of more efficient and cleaner energy facilities.
- Design and construction of efficient power lines that help to reduce energy consumption.

Moreover, Abeinsa conducts research in different fields and develops and applies new technologies that help fight climate change and contribute to the creation of a sustainable world:

- Through ZeroEmissions, it contributes to reducing emissions of CO<sub>2</sub> and other greenhouse gases, thereby working towards compliance with the Kyoto Protocol.
- Through Hynergreen, the leader in hydrogen technology, with pioneering R&D projects in hydrogen production and clean energy generation utilizing fuel cells.
- Through the development of new technologies linked with energy efficiency.
- Through research into new renewable energies.





The company also addresses the expectations of interested parties with specific policies focused on attracting and retaining talent. It also builds up relationships of trust with local communities, preserves biodiversity and applies the principles of transparency in its relationships with the authorities of the countries it operates in.

Abeinsa conducts activities in more than 20 countries while operating in very diverse social, cultural and economic environments. In this respect, the company applies global standards, policies and practices without overlooking local concerns. This allows it to understand and respond to the specific needs of the different communities it is involved with in the different stages of its business.

By paying attention to local detail, the company is able to keep in touch with what concerns society while also protecting and strengthening its reputation, unearthing business opportunities and generating social trust in the company. This focus undoubtedly stimulates all those working in Abeinsa and motivates them to ensure the company plays its role within society and, thereby, contributes to the construction of a better world for everyone.

Abeinsa's constant growth is largely due to the basic pillars of its strategic plan, which are: customer satisfaction, internationalization, profitability, innovation, human resource development, and social involvement.

Abeinsa conducts the following lines of business:

1. Energy. Integrated solutions in the energy sector by promoting, seeking funding for, engineering, constructing and operating new power plants and industrial facilities, with special emphasis on the solar and biofuel sectors, and upgrading existing facilities.
2. Installations. Engineering, construction and maintenance of electric and mechanical infrastructures and instrumentation for the energy, industry, transport and services sectors; installation of insulation, refractory and passive fire protection materials.
3. Marketing and ancillary manufacturing. Marketing of products related with the aforementioned activities, as well as manufacturing of auxiliary elements for energy and telecommunications.
4. Telecommunications. Integration of telecommunication networks and turnkey projects.

5. Latin America. A market in which the company has maintained a stable presence for more than forty years through local companies that carry out all the activities of the Business Unit in a fully autonomous manner.
6. Abeinsa New Horizons. Develops innovative projects linked to sustainable development: hydrogen technologies, energy efficiency, carbon credits management, CO<sub>2</sub> capture and valorization, and new renewable energies.

There are common characteristics to Abeinsa's customer base and these determine the company's strategy for each of its lines of business. The Group's customers are basically public administrations and large corporations in industrial sectors ranging from the environment to energy generation. The very nature of its customers means Abeinsa must make every effort to achieve a high degree of quality and thereby assure customer satisfaction. In this respect, the Group invests continuously in innovation and the development of production processes, and in improving work systems and methods in order to adapt to the increasing specialization of the customers its services focus on.

Environmental management in Abeinsa is integrated and aligned with its corporate strategy and incorporated into the decision-making process of the company's senior management. On the basis of this commitment, the aim is to minimize the impact of its activities on the natural environments in which it operates by developing a wide-ranging suite of activities focused primarily on aspects related to climate change, implementation of environmental management systems, correct management of discharges, wastes, emissions, contaminated soil and other repercussions on the environment.

### Summary 2008

The international development and growth Abeinsa has been experiencing over recent years continued over 2008, positioning the company as a world market leader in the sectors it operates in. This achievement has been possible thanks to the work of the human team that executed the company's construction and engineering projects in 2008, of which we would highlight:



- Completion of construction of PS20 solar thermal power plant for Abengoa Solar. This 20 MW plant is the second to utilize tower technology with more than 1,200 mirrors at the Sanlucar La Mayor Solar Platform (Sevilla).
- Construction of Solnova 1 and Solnova 3 solar thermal power plants for Abengoa Solar. Both of these 50 MW plants utilize parabolic trough technology.
- Construction of four bioethanol plants for Abengoa Bioenergy: two in Europe (a 200,000 m<sup>3</sup> capacity plant at Lacq, France, and a 480,000 m<sup>3</sup> capacity plant at Rotterdam, Holland), and two in the United States (in Illinois and Indiana, each boasting a 333,000 m<sup>3</sup> capacity).
- Construction of two ISCC technology solar thermal power plants: the 470 MW plant at Ain Beni Mathar (Morocco), and the 150 MW plant at Hassi R'Mel (Algeria).
- Execution of Package II of the Electric Energy Interconnection System for Central American Countries (Siepac). This project comprises the construction of 950 km of 250 kV transmission line routed through Nicaragua, Costa Rica and Panama.
- Completion and commissioning of the ATE III transmission line works, comprising Section I of the North South III interconnection, with 318 km of 500 kV cable and 107 km of 230 kV cable, comprising the following subsections: Colinas to Itacaiunas, 500 kV single circuit; Itacaiunas to Carajas, 230 kV single circuit; Itacaiunas to Maraba, 500 kV double circuit; and the 500/230 kV – 900 MVA Itacaiunas substation.

Special mention must be made of two projects awarded during the year in Brazil and Peru:

- Contract to construct a new power transmission line in Brazil: the National Electric Energy Agency of Brazil (Aneel) awarded Consorcio Amazonas, in which Abengoa holds a 50.5% stake and Grupo Electrobras the remaining 49.5%, the operation of a 586 km, 500 kV power transmission line between the towns of Oriximina, Itacoatiara and Camiri. The concession contract includes the construction of the installations, and subsequent 30-year operation and maintenance thereof.



- ATN: early in the year, Abengoa Perú SA was awarded the concession contract for the “Carhuamayo – Paragsha – Conococha – Huallanca – Cajamarca – Cerro Corona – Carhuaquero Transmission Line” project. The contract includes the design, construction and 30-year administration, operation and maintenance of the aforesaid transmission line. This almost 670 km line is routed through six provinces in the northern mountain range of Peru. Its average height is 3,200 m.a.s.l. The main objective is to strengthen the National Interconnected Electric System (SEIN) which will allow greater energy transmission capacity to this important region of the country.

### Evolution of the business

Within a generalized context of a financial crisis that is affecting the construction activity and the economy in general, Abeinsa has managed to overcome these barriers and achieve business growth. This means that, within a hostile market resulting from the economic and financial situation, the company has performed better than the average for the sector.

Strict control of costs and risks, together with intense commercial activity kept very close to the ground, has allowed Abeinsa to get through this period while maintaining stability in the basic variables of its business. Within a context in which it is obvious the company cannot be completely free of the conditions of the marketplaces in which it conducts most of its activities. Abeinsa has managed to ensure these conditions did not alter, in any way, the normal evolution of its business, and the company continues to work along these lines to ensure the situation does not change in the future by:

- Fostering growth in regions or for products with promising prospects for the future. In this sense, Abeinsa has strengthened its international standing in countries such as Brazil, Peru and India.
- Focusing on cash-flow generation. In recent months, Abeinsa's businesses have been working on adapting the available supply to a lower demand scenario, on rigorous control of costs, and on reducing working capital, with meticulous management of customers and of stocks.

Therefore, even though the general economic environment is still shrouded in doubt, Abeinsa's prospects are still favorable within both the domestic and international markets. In the Spanish market, in spite of the deceleration it is experiencing, no slowdown in demand has been noticed in the main sectors on which the company's supply focuses. Abeinsa's position in relation to large-size customers, the coverage provided by its order book at year end, and reasonable expectations – in relation to the awarding of contracts from bids already presented and to new opportunities in the pipeline – all allow the company to be fully confident that it will attain its growth and profitability objectives in the Spanish market.

Prospects are also favorable in the international markets where the company expects continued growth at rates higher than those of the domestic market.

The solid foundations for growth allow the company to optimize profitability by applying rigorous selection criteria for new projects in function of their potential for creating value. To this end, well defined objectives that pursue selective, sustainable and profitable growth have been established. These include:

- To continue to lead the future growth of the sector.
- To continue to promote recurring services, such as integral maintenance of installations.
- To increase the average profitability of the activity by fostering the higher added value businesses, such as turnkey projects, while maintaining a strict policy of cost control.
- To promote new businesses by investing in projects related to renewable energies, both wind and solar, and in traffic and transportation control systems.



- To implement a geographic expansion policy while applying rigorous criteria regarding profitability and stability.

## Our activities

### Energy

This line of activity focuses primarily on the promotion, construction and operation of industrial plants and conventional (cogeneration and combined cycle) and renewable energy (bioethanol, biomass, solar, and geothermal) power plants.

In 2008, Abeinsa, through Abener, consolidated its international presence as leader in the construction of solar thermal power plants and bioethanol production plants. The initiation of pioneering projects worldwide utilizing environmentally friendly technologies, coupled with its experience in the main markets, have allowed the company to position itself as an undisputed benchmark within the sector.

The Operation and Maintenance (O&M) line of business applied to generation plants includes preventive, scheduled and corrective maintenance of equipment and systems, and the operation thereof to ensure the facility operates reliably and meets design performance levels in terms of output, availability and load factor.

### Abener Energía

If in 2007 Abener achieved international leadership with PS10 (the world's first tower technology solar thermal power plant to operate commercially), in 2008 it surpassed its growth expectations thanks to completion of the PS20 power plant. Both plants were constructed for Abengoa Solar, PS20 marks Abener's second venture into this type of power plant. It is a 20 MW plant with more than 1,200 mirrors (twice that of PS10). This project consolidates Abener as a leading construction company for these types of facilities.

Parabolic trough collector (PTC) technology is one of the most innovative solutions of recent years in the solar thermal sector. Abener's construction portfolio for Abengoa Solar includes the Solnova 1 and Solnova 3 PTC technology power plants, on which construction continues as scheduled, and the Solnova 4 plant, for which





construction commenced in 2008. The three plants are of very similar characteristics: each plant is 50 MW with a solar field of 360 collectors.

Abener's solar line of business also focuses on ISCC (Integrated Solar Combined Cycle) technology. Abener is a pioneer in the construction of ISCC plants with two projects currently under construction in Algeria and Morocco, in collaboration with the Abengoa Solar Business Unit. These are the world's first two hybrid power plants, 150 MW and 470 MW respectively, comprising a PTC solar field and a combined cycle. Both plants will be brought into operation in 2010.

As the undisputed leader in the construction of bioethanol facilities in Europe, Abener is currently executing the largest plant on the continent. With a capacity of 480,000 m<sup>3</sup>, the plant is being constructed in Holland for Abengoa Bioenergy. It is one of the company's most ambitious projects. Abener also successfully completed the construction of another 200,000 m<sup>3</sup> capacity bioethanol facility in France, also for Abengoa Bioenergy.

Abener is currently present in Poland (Abener Energo Project Gliwice), the United States (Abener Engineering and Construction Services, Abencs), India (Abencs Engineering Private Limited, AEPL), Mexico (Abener México), and Brazil (Abentey). Its expansion concludes with the incorporation of the company Abener Ghenova Ingeniería (AG Ingeniería) following the agreement signed with the engineering firm Ghenova. The main activity of this new company will be to provide engineering services for the solar power plants and industrial plants undertaken by Abener, in coordination with available engineering resources in Poland and India.

### Operation and Maintenance

During 2008, the O&M Division conducted its activities at eight different plants (three cogeneration plants, three generation plants operating at gas strata, one photovoltaic plant, and one tower technology solar thermal power plant). It also provided O&M technical assistance services at another cogeneration plant.

Thanks to the experience accumulated over many years, the Division has been entrusted with the O&M work for the coming years for two plants that are currently under construction outside Spain: the 470 MW total

installed output ISCC plant at Ain Beni Mathar (Morocco), and the 150 MW ISCC plant at Hassi R'Mel (Algeria). These two international projects are an unprecedented challenge, which will allow the Division to export all its experience, knowledge and know-how.

## Installations

This is the field in which Abengoa commenced its industrial activity back in 1941. The parent company is Inabensa, S.A. and it engages in the core traditional activities, which are mainly engineering, construction, maintenance of electric and mechanical infrastructures and instrumentation for the energy, industry, transport and services sectors, as well as the installation of refractory, insulation and passive fire protection materials.

### Inabensa

Its development of the activities defined in the strategic plan has allowed it to not only meet the objectives established in the annual plan, but also to establish the bases required to successfully undertake the important growth program established for the next few years.

Of note among the work commenced, continued or completed by Inabensa in 2008 throughout its different lines of business are:

#### Electric installations

For a further year, Administrador de Infraestructuras Ferroviarias (Adif) has trusted Inabensa to execute its projects, such as the electric substations for the AVE (High Speed Train) Madrid – Valladolid – French Border line and the electric traction substation at Blanes, in Gerona; and recently the project comprising the three electric traction substations and transformer substations associated with the same line.

For Red Eléctrica de España, works were conducted at the electric substation on the Betica and Duero demarcation. Among other projects, works and services continued in the provinces of Cadiz and Huelva for Endesa, as did distribution, metering, outage and repair works for Iberdrola in Guipuzcoa.

This year, for the Regional Government of Andalusia, Inabensa executed the reform works of the air-conditioning installations in the New Zealand pavilion, in Seville. Work was also carried out on the construction of new tracks and conditioning of existing tracks in the Camilo Cano indoor sports center for La Nucia Town Council, in Alicante. Also of note were the electronic installations at different Mercadona shopping centers throughout Spain.

Special mention must also be made of the work completed at the largest private initiative industrial technology complex in southern Spain – Palmas Altas Technology Park – which will be Abengoa's future HQ and will allow the company to concentrate its activities focused on leading-edge technologies, environmental excellence and sustainable development in the city of Seville.

#### Large HV lines

The overhead high-voltage lines sector continues to be one of Inabensa's key activities and work has continued to flow in from the company's long-standing customers. This year, construction work commenced for REE on the 400 kV Soto-Penagos line; the shielding, hoisting and stringing of the 400 kV Escombreras Rocamora line (section III), as well as section I of the Castellon-Muruarte line. The stringing of the Morvedre-Gausa line and of the Zom Sevilla fiber optic cable was also executed for REE in 2008.





High voltage line works were also executed for Endesa Distribución Eléctrica under the Tramontana Plan, as was the 220 kV Granadilla-Vallitos line. Once again, the work performed over 2008 for Iberdrola Distribución Eléctrica was worthy of particular note.

### Railways

Inabensa's railways activity is noteworthy for the projects undertaken during the year:

- Execution of the rehabilitation and upgrading works on the overhead contact wire on the Gallur-Castellon section of track.
- For Administrador de Infraestructuras Ferroviarias (Adif), the construction project and maintenance of the overhead contact wire installations and associated systems for the new Madrid – Castilla La Mancha – Valencia Autonomous Region – Murcia Region high speed railway access.
- The classification system relating to the works execution contract for the total renovation and independent compensation project for the catenary on the Mataporquera – Reinosa section of the Palencia – Santander line.
- Participation in the Regional Government of Catalonia project aimed at constructing an interchange system.

### Maintenance and instrumentation

Both Almaraz and Trillo Nuclear Power Plants were once again key pieces in the nuclear energy sector for 2008, with numerous services provided for maintenance and instrumentation, operation and loading, modifications to electric designs and operation of the different computerized process systems.



Maintenance works were carried out for Cepsa at several of its facilities and refineries. These included the expansion of the cogeneration substation, lighting systems, 66 kV substations and the interconnection project at its La Rabida refinery, in Huelva, along with the vacuum unit project at San Roque refinery, in Gibraltar.

#### **Insulation / Refractory / Passive fire protection materials**

This year, Protisa carried out soundproofing works for Sniace Cogeneración, and special insulation works on chlorine pipelines, acoustic enclosures and sundry works for Solvay Química in Torrelavega, Cantabria.

For BP Oil España, refractory lining repair works were carried out, as were surveys and acoustic enclosure works at the refinery in Castellon. Several fireproofing projects were also carried out at the Cepsa refinery in Algeciras, in addition to refractory lining works for Repsol Petroleo in La Coruña.

#### **Mechanical installations**

In 2008, the Mechanical Assemblies Division completed construction of the 1.89 MW Linares and Casaquemada photovoltaic plants, each formed by 132 double-axis sun trackers, and of a 5.6 MW photovoltaic plant formed by single axis flat collectors.

Within the field of installations, work continued on the project aimed at Reforming and Adapting the Installations of the Former Vigil de Quiñones Hospital to current Legislation, as did the mechanical installation works on the Palmas Altas Technology Park project.

#### **Concessions**

Of note in the health sector as regards service concessions were the construction of the hospital building, outpatients' consulting area, and parking areas, among others, of Costa del Sol Hospital, in Marbella, and the photovoltaic installations at San Juan de Dios Hospital in Malaga, and also at the hospital of the same name in Las Palmas de Gran Canarias.

We would also highlight the concession of several photovoltaic power plants on the Expoagua site in Zaragoza.

#### **Manufacturing**

In 2008, Inabensa's manufacturing division continued to play an important role in contracting switchboards and electric cabinets manufactured in the workshops of Madrid and Seville. Of note in this sector were the





switchboards manufactured for Initec for the refinery in Cartagena, and the manufacturing of cabinets for numerous customers including Grupo Duro Felguera, BP Oil, REE and General Electric, among others.

### Overseas

Year after year the activities carried out abroad have strengthened the company's standing in those markets considered strategic. Of note are the following:

- In Central America, the company was awarded the construction contract for Package II of the Electric Interconnection System for Central American Countries (Siepac). The project involves the construction of 950 km of 230 kV line routed through Nicaragua, Costa Rica, and Panama.
- In Morocco, for the ONE, the 132 km double circuit 400 kV Zemmour-Mediouna line, and two 30 km double circuit 400 kV lines in parallel from Mediouna-Oualili.
- In Libya, Inabensa is executing, for Gecol, the 575 km single circuit 400 kV Misurata-Surt-Ras Lanouf-Agdayia line.

### Inabensa Maroc

In the energy sector, Inabensa Maroc installed 225 kV lines for its customer Autoroutes Du Maroc, and the first substation for Abener at the ISCC Ain Beni Mathar power plant is also currently under construction. The company also completed rural electrification projects.

Noteworthy in the telecommunications sector is the 2008 infrastructures deployment project and fiber optic cable installations for the country's third largest operator, Wana, and the second largest operator, Mediatecom.

### Inabensa Bharat

Inabensa Bharat is currently completing work on the 400 kV D/C (135 km) Baripada-Mendhasal transmission line for Powergrid Corporation of India Ltd., 170 km of the 400 kV S/C Rasnalu-Sirt high voltage line for General Electric Company of Libya, and the supply of galvanized steel angles for Eucomsa (Spain). Furthermore, there are projects for a Transmission System linked to the Mahan Thermal Energy Project for Essar Power Transmission Company, a 400 kV D/C Jakhau-Halvad and Halvad-Vadavi line for Suzlon Power Infrastructure Pvt Ltd. and the supply and installation of another 220 kV transmission line from Hetauda to Bharatpur, in Nepal, for Nepal Electricity Authority.





### **Inabensa Tianjin**

In 2008, further inroads were made into the Chinese manufacturing industry through the subsidiary Inabensa Tianjin. The company has a new production center (more than 5,000 m<sup>2</sup>) equipped with the most advanced resources for carrying out its business. The center is in the Tianjin Economic and Technological Development Area (TEDA).

The most significant projects were, through Telvent, the manufacturing of RMY local control traffic regulators for Panama, Spain, and India, and ATVM ticketing units for Valencia metro in Venezuela. Furthermore, in 2008, Inabensa Tianjin was homologated as a manufacturer of motor control centers and turbine control equipment, having implemented projects for Chile, Nigeria, and Azerbaijan.

### **Inabensa France**

The most important projects executed in 2008 included the final construction of the 400 kV Marlenheim – Vigy line; the changing of the conductors on the 400 kV Avelin-Warande-Weppes line; and reinforcement work on the 225 kV Jonquières – St. Césaire 2, the 400 kV Cordemais – La Martyre, and the 400 kV Tamareau – Tavel lines.

### **Inabensa Abu Dhabi**

In 2008, Inabensa's subsidiary in the United Arab Emirates successfully designed a fiber optic network for ADWEA. The network covers the entire Emirate of Abu Dhabi and connects most of its transformer substations. The network will be capable of almost unrestricted growth and will cover ADWEA's existing and future needs.

Lastly, the most important project awarded this year involved the installation of a suite of 33/11 kV substations in the eastern region of the country for ADDC, thereby confirming Inabensa Abu Dhabi's healthy position in this very strategic and emerging market.

### **Telecommunications**

This line of business is committed to integrating turnkey telecommunication networks and projects. The activity is carried out by Abentel and by Inabensa's Communications Division.

Abentel continued to carry out its traditional outdoor plant construction and maintenance business over 2008, as well as the provision and maintenance of customer loops and equipment. Within the latter, there was an important increase in the procurement and maintenance of ADSL broadband and its range of associated products.

### Abentel

During the year, the company participated in the FTTH network pilot project aimed at installing fiber optics right up to the customer's home. This includes construction of the supply and distribution networks, installation of fiber optic cable for the customer and associated equipment. To bring this to fruition, large investments were made in installation and measuring units, and in training the necessary personnel for network deployment: installers, and engineering and license personnel. FTTH is expected to generate a lot of activity in years to come.

The works indicated above correspond to the 2007 – 2011 Global Customer Loop Contract signed with Telefónica de España S.A.U. As regards implementation in provinces, work continued in the same provinces as the year before and the company maintained its leading position as regards contracted volume with operations in Alicante, Badajoz, Barcelona, Cádiz, Jaén, Madrid, Sevilla, Tenerife, and Valencia.

### Inabensa Communications Division

Inabensa's communications division continues to provide its experience while adapting to new technologies. This can be seen in the projects performed for the country's main mobile phone operators, such as the infrastructure and site works in Andalucía and the central region, the 2G radio and Utran 2008 transmission equipment installations for Vodafone, as well as diverse maintenance and associated work for Telefónica Móviles España.

Furthermore, the RIMA 40 project was completed successfully during the year for Telefónica, involving the installation, configuration and commissioning of 11 optic transmission nodes with 40 Gbps Dense Wavelength Division Multiplex (DWDM) technology. These nodes are the first in Europe to feature this technology.

### Marketing and ancillary manufacturing

Within this field, Abeinsa primarily manufactures and markets products related with the Business Unit's activities, while also producing auxiliary elements for energy and telecommunications.

Nicsa maintained its leading position in Spain and consolidated its international presence as a supplier of electric



materials, instrumentation and communications for the chemical and petrochemical industries, refineries, and combined cycle, solar thermal, nuclear, and thermal power plants, and for the heavy industry in general.

As part of its development model, Abencor has paid special attention to activities related with sustainable development, and has likewise established a new Sales Division focused on Energy Efficiency. The objective is to broaden the range of products and provide solutions that allow its customers to optimize the resources used in energy consumption.

Eucomsa experienced significant growth during the year, spurred on by the roll out of the solar plant projects included in Abengoa's program and the exceptional procurement of pylons for transmission lines in Spain for REE as a consequence of the large investment plan this company has launched.

Bolstered by its traditional export business, Comemsa has continued to play an active role in the US and Central and South American markets. To meet this demand, the company's production capacity was increased in 2007. Its facilities were expanded and three new process lines that became fully operational in 2008 were purchased. During the year, more than 100,000 t were produced from commencement of operations.

### Nicsa

The most significant projects undertaken by Nicsa in the year were:

- Reconfiguration of the General Lazaro Cardenas Refinery (Minatitlan, Veracruz, Mexico), Package III, Combined Diesel Catalytic Cracking and Hydrodesulfurization Unit. Turnkey by Dragados Industrial for PEMEX, where Nicsa has supplied the medium and low voltage cables, instrumentation cables, lighting, pushbutton stations, conduit boxes, intercommunication and public address system, electric installation material, instrumentation installation material, cable trays, conduits, electric plotting and junction boxes.
- Granadilla II. 1 x 240 MW CCTPP, Tenerife. Turnkey by Técnicas Reunidas for Endesa, Nicsa supplied the grounding system, medium and low voltage cables, instrumentation cabling and fiber optics, lighting system (supply and engineering), busbars, trays, conduits and accessories, and sundry instrumentation material.
- Remodeling and capacity increase project for the gas field compression installations at Saih Rawl, in Oman. Turnkey by Técnicas Reunidas and Initec for PDO (Petroleum Development Oman). Supply of the grounding system, safety panels and breakers, high voltage, and medium and low voltage cables, conduits, lighting, conduit boxes, and electric installations material.

### Abencor

In 2008, Abencor achieved its highest ever turnover following five years of uninterrupted growth.

Of note among the projects undertaken by Abencor in 2008 were:

- The supply of more than 50,000 solar photovoltaic modules to generate energy at plants connected to the grid. These panels have been utilized in different locations, noteworthy among which are the facilities at Las Cabezas, Linares, and Expoagua, in Zaragoza.
- The supply, installation and start-up of six power transformers for the Endesa substations that powered Expoagua, in Zaragoza, as well as other transformers for other Endesa substations in Cataluña y Andalucía, and for Hidrocantábrico, in Leon.
- The supply of MV cables for the splitting of TC1 Picasso, at Malaga Airport, where a 12/20 kV 1x240 H 16 AS aluminum cable was installed in September.



### Eucomsa

2008 marked a turning point for Eucomsa as regards both activity and turnover. The volume of business almost doubled that of 2007, therefore representing extraordinary progress for the Company.

In order to meet the structural needs of the parabolic-trough solar thermal power plants, the company supplied the structures for the Solnova 1 and Solnova 3 plants in Sanlúcar La Mayor (Sevilla), and also arranged the contracts in Morocco and Algeria, in close coordination with its subsidiary in Mexico, Comemsa.

As regards the traditional pylon market, significant orders were received from REE for 400 kV lines, and numerous supplies of pylons for sundry grid maintenance works were also made. Contracts were also signed for substations, such as those of Garraf and Cartama, each 400 kV.

### Comemsa

In line with corporate strategy of commitment to sustainable growth, 2008 saw Comemsa begin to manufacture structures for the solar thermal power plants Abengoa Solar is constructing at the Solucar platform, Solnova 1 and Solnova 3, and for the Hassi R'Mel plant in Algeria and the Ain Beni Mathar plant in Morocco. The aim with this new line of products is to diversify Comemsa's activity and make it less dependent on the transmission lines sector, and also to diversify markets and set the United States market in its sales sights, without forgetting Central and South America.

The most significant projects undertaken in 2008 included continuation of the supply for the Siapec project (Central America Electric Interconnection) contracted with Inabensa, which will be completed in 2009. With Cobra, Comemsa designed, tested and supplied the structures for the Hidroxcabal project in Guatemala. Within the same country, the company also supplied the interconnection line with Mexico for Isolux. A line was also exported to Trinidad and Tobago for the Colombian company HMV.



### Latin America

The organization of the Latin America Business Unit is based on making its presence felt in different countries through local companies: Argentina, Brazil, Chile, Mexico, Peru, and Uruguay. It operates as an independent unit within Abeinsa as it operates within a specific market where our presence has been stable for more than 40 years and in which the different companies conduct all of Abeinsa's lines of business, such as Energy, Installations, Telecommunications, Marketing and Auxiliary Manufacturing, Civil Engineering and Environmental Services.

The policy of diversifying by country and product, coupled with the strengthening of the management team and its flexibility, have allowed the company to enjoy a satisfactory year with the help of the technological backing of Abeinsa and under common management standards.

A very important portion of the business comprises the high voltage line concession contracts, which Abeinsa constructs and operates. In this regard, of note in 2008 was the commercial start-up of ATE III, the 318 km of 500 kV and 107 km of 230 kV transmission line corresponding to Section I of the North South III Interconnection, comprising the Colinas – Itacaiunas 500 kV single circuit; and the Itacaiunas – Carajas 230 kV double circuit subsections, and the 500/230 kV – 900 MVA Itacaiunas substation.

We would also highlight the contract awarded by the National Electric Energy Agency of Brazil (Aneel) to Consorcio Amazonas - in which Abengoa holds 50.5% and Grupo Electrobras the remaining 49.5% - to operate the 586 km, 500 kV transmission line between the towns of Oriximina, Itacoatiara, and Camiri. The concession includes the construction of the installations and operation and maintenance of the same for 30 years. The estimated investment is more than \$820 M. In addition, the project includes the construction of two new substations and expansion of an existing substation. The contract is to be executed in 36 months and the works will be carried out on the left bank of the Amazon River.

As a continuation of the company's partnership strategy, Consorcio Integración Norte (25.5% Abengoa, 25.5% Andrade Gutierrez, and 49% Electrobras) was awarded, in November 2008, the transmission line concession contract for the Madeira River energy complex. The concession includes construction of the installations and a subsequent agreement to operate and maintain them for a term of 30 years. The estimated investment in the works is more than 4,000 MBrl – equivalent to € 1,300 M. The project will be executed with direct current transmission technology and transportation capacity will be 3,150 MW at 600 kV. The line spans a total of 2,375 km (equivalent to the distance between Madrid and Oslo).

In 2008, Teyma Uruguay completed its company restructuring process and created four parent companies for its Business Lines: Teyma Construcción (construction in Uruguay), Teyma Internacional (international construction), Teyma Forestal (services and biomass), and Teyma Medioambiente (urban and industrial waste services). This has allowed the company to position itself better in its target markets and to tackle the new projects contracted in recent years while also broadening its prospects for forthcoming years.

In an ever more competitive environment, Abengoa Peru achieved significant growth rates and established itself as one of the sector's most important players in the creation and development of electric, civil and hydraulic infrastructures. The concession contract awarded for the design, construction and 30-year operation of the 670 km, 220 kV transmission line, with seven substations, from Carhuamayo (central mountain range) to Carhuaquero, in the north of the country, is especially noteworthy.

### Abengoa Brasil

The implementation of the new strategic plan has resulted in a change of approach within Abengoa Brasil, and is seen as a major challenge on a par to when the company first commenced activities in the country. The

proposed diversification of activities is being undertaken through collaboration and joint business development agreements with leading companies in the clean energy generation sectors (bagasse from sugar cane and wind power) and by diversifying customers of its traditional services.

As a result of the strategic partnerships established and the resulting synergies, Consorcio Amazonas (50.5% Abengoa, and 49.5% Eletrobras) was awarded a new 563 km power transmission line concession contract in July 2008, requiring an estimated total investment of \$800 M. In November 2008, Consorcio Integración Norte (25.5% Abengoa, 25.5% Andrade Gutierrez, and 49% Eletrobras) was awarded the 2,375 km transmission line concession contract for the Madeira River energy complex.

### Energy Transmission Grid Concessions Division

In Brazil, the company is operating 3,784 km of high voltage lines (230 – 500 kV) and a further 463 km of additional lines are currently under construction. Total investment has been approximately \$1,720 M.

Following the commissioning of the ATE III, 2008 has seen the company operate at its facilities 6,157 MW of the SIN (National Interconnected System), representing 9.4% of the system's total output, while strengthening the interconnections of the country's South-Southeast and North-Northeast regions in order to provide greater operational reliability and flexibility.

Moreover, the company brought the System Operation Center in Rio de Janeiro into operation, enabling it to centralize energy transmission grid operating activities through the use of cutting-edge technologies and to enhance the reliability and efficiency of such activities.

### Lines and Transformer Substation Construction Division

In 2008, the works corresponding to ATE III were completed and brought into operation. The contract value was 700 MBRL. It was completed ahead of the contract date despite the significant delays in attaining the necessary environmental licenses.

At present, four new contracts are in progress with different concessionaires: ATE IV, ATE V, ATE VI, and ATE VII, all of which are 100% Abengoa owned. These projects will be delivered to the concessionaire in question over the first quarter of 2009.

### Teyma Abengoa

The main contracts completed or in progress in 2008 were:

- 500 kV Colonia Elía Section "0" substation. The work, contracted in 2007 by Intesar S.A., the candidate awarded the "Third Section of the Transmission System associated with the Yacireta Hydroelectric Power Station, Rincon - Santa Maria - Rodriguez", was completed in July this year. By May 2008, partial fitting out had already been executed. This allows energy from Yacireta Hydroelectric Power Plant and from the Republic of Brazil to be transmitted to the rest of the country.
- 132 kV Güemes Salta Norte HVL. The State Department of Energy directly awarded Teyma Abengoa this contract to construct the mountainous section of the 132 kV Güemes – Salto Norte line.
- 500 kV Stringing Works. In relation to the Transmission System associated with the Yacireta Hydroelectric Power Plant and also the 500 kV Jose de San Martin Thermal Power Plant Interconnection. Intesar S.A. contracted Teyma Abengoa to string the conductors (four conductors per phase), guard wires and OPGW, for a combined total of 50 km for both projects.



### Abengoa Chile

Of note among the main projects completed or in progress in 2008 were:

- Construction of the Northern Waste Management Center (WMC) for the company Soluciones Ambientales del Norte. The facilities are located in the 2<sup>nd</sup> Region of Antofagasta within the municipality of Sierra Gorda. The plant will mostly receive waste from the large mining works in the area and will contribute significantly to the sustainable development of both the region and the country.
- Civil work and electromechanical installations for a new 500 kV yard and its interconnection with the existing 220 kV yard at Transelec's Polpaico substation. The contract also includes modifications to the transmission lines in the El Rodeo sector, where the existing 500 kV Ancoa - Alto Jahuel No. 2 line will be sectioned, as well as modifications to the 500 kV line entry to Polpaico substation.
- Engineering, supply and construction, for Transelec, of the new transmission line that will connect Ventanas substation – located on the site of the Ventanas Thermal Power Plant – to the future Nogales substation programmed for the second quarter of 2009. The 29-km Ventanas-Nogales transmission line will be a 2x220 kV, 640 MVA line with two conductors per phase.



- In addition, Endesa awarded Abengoa Chile three contracts that include the supply, construction, assembly and commissioning of the transmission facilities required to evacuate generated energy from Quintero thermal power plant to the Central Interconnected System.

### Teyma Uruguay

The four Lines of Business into which Teyma Uruguay has been split achieved sales that tripled the previous year's volume, and prospects for forthcoming years point towards sustained growth in all areas.

### Teyma Construcción

The main works completed or in progress in 2008 are described below:

- Administración de las Obras Sanitarias del Estado (OSE). Sixth Pumping Line Project aimed at solving the drinking water supply problems of the western area of Montevideo and Canelones. The contract includes the design, supply and installation of 33 km of 1,200 mm diameter ductile cast iron piping, as well as other smaller diameter pipes.

- Agroland. Wind Farm. The company Agroland has constructed Uruguay's first wind farm and the largest in the region, which includes 16 wind turbines for electricity generation. Teyma executed the civil and electric works, and provided assistance with installation of the units.
- Punta del Este: Le Parc Tower. The project, which has already been handed over to its owners, consisted of an 84-apartment tower, associated utilities, four swimming pools, tennis courts, a gym, dance hall, saunas, playroom, golf range and garages for 310 cars. The apartments occupy 20,000 m<sup>2</sup> and the garages 10,500 m<sup>2</sup>.
- Administración Nacional de Usinas y Transmisiones Eléctricas (UTE). Turnkey supply and installation of eight 10.5 MW piston engines for electric energy generation, and operation and maintenance of the same for two years at Batlle Power Station, in the city of Montevideo.
- Administración Nacional de Usinas y Transmisiones Eléctricas (UTE). Acting as subcontractor to Areva, the company contracted by UTE for the turnkey supply and installation of a 60/50 Hz, 400 MW frequency converter in Melo. Teyma is responsible for all the civil and electromechanical installation works.

### Teyma Forestal

The main contracts are:

- Automated harvesting for cellulose pulp production for Forestal Oriental S.A. In March 2006, work commenced under the first 4-year 100% automated forest harvesting contract for Forestal Oriental S.A. (Botnia) for its cellulose plant. This contract was extended by another 4-year contract, leading to annual timber harvest volumes of 300,000 m<sup>3</sup>.
- Automated harvesting for cellulose pulp production for Eufores S.A. (ENCE). In 2008, work commenced on a 4-year contract to harvest eucalyptus tree plantations for an annual volume of 150,000 m<sup>3</sup> to produce chipping to be sold to cellulose plants in Europe.

### Teyma Medioambiente

Its main activity at present is urban waste collection, the contract with Montevideo City Hall being the most important.

Under the name CAP, it provides the waste collection, street sweeping, washing and cleaning services in a specific area within Montevideo city center. The contract has a term of 7 years, renewable for a further seven years.

### Teyma Internacional

As a consequence of Abengoa's plans to invest in new biofuel and solar energy plants, Teyma has been contracted to participate in such projects and will collaborate with Abener on the civil works.

The main projects underway are:

- Bioetanol Lacq. Europe's second largest bioethanol production plant, boasting a capacity of 200,000 m<sup>3</sup>/year. The raw material is cereal grains and some 150,000 t of DDGS/year will be obtained as a byproduct.
- Biodiesel San Roque. Design and execution of the civil works for the construction of a biodiesel production plant that utilizes crude vegetable oils from soya, rapeseed, palm, palm olein and methanol as the raw material. The plant's production capacity is 200,000 t/year.
- Solnova I, Solnova III and Solnova IV thermal power plants, each with an energy output of 50 MW. They utilize a parabolic trough collector technology.



- ISCC Aïn Bení Mathar – Morocco. A hybrid electricity generating plant that utilizes gas and solar thermal energy to achieve an overall combined capacity of 470 MW. It is the first in the world to operate with combined cycles of gas and parabolic trough solar field.
- Hassi R'Mel (Algeria) 150 MW hybrid electricity generating plant. It is a combined cycle (gas – steam) hybrid power plant that utilizes a solar field and groundbreaking technology. The solar field is formed by parabolic trough mirrors.
- Abengoa Bioenergía Sao Luiz – Cogeneration plant. EPC construction of 70 MW installed capacity cogeneration plant that utilizes bagasse as fuel at the Sugar and Alcohol Factory located in the city of Pirassununga - SP.
- Abengoa Bioenergía Sao Joao – Cogeneration plant. EPC construction of a 70 MW installed capacity cogeneration plant that utilizes bagasse as fuel at the Sugar and Alcohol Factory located in the city of São João de Boa Vista (Sao Paulo).
- Bioetanol Rotterdam. A 480,000 m<sup>3</sup>/year bioethanol production facility – Europe's largest. The raw material can be either corn or wheat and 325,000 t/year of DGS will be obtained as a byproduct.

### Abengoa Mexico

The main projects under construction are:

- Project for supply and construction of the light crude heating system at Dos Bocas maritime terminal on the premises of Pemex Exploración y Producción, in Paraíso within the Mexican State of Tabasco.
- Abengoa Mexico, in consortium with Inabensa, was selected by the Spanish company Construcciones y Auxiliar de Ferrocarriles (CAF) to construct the electric energy system and install the catenary on the first 27 km of the suburban railway line. The scope of the work includes: the installation of the simple catenary system, the supply and installation of two 230 kV substations at the Buenavista and Tutitlan stations, the supply and installation of eight 23 kV auxiliary substations for stations, and the construction of the 27 km, 23 kV medium voltage subterranean distribution line.



- Execution of all the works required to construct and install six 400 kV substations in the State of Mexico, United Mexican States, with 1,150 MVA total inductive reactive compensation.

Abengoa Mexico was selected by the concessionaire Ferrocarriles Suburbanos, S.A. de C.V. to carry out the maintenance works on the first massive passenger rail transport project in the Federal District and conurban area of the State of Mexico. The contract includes: elaboration of the maintenance plan, preventive, corrective and predictive maintenance; supply of spare parts for both catenary and substations; and development of a training program for the concessionaire's personnel.

### Abengoa Peru

The most important projects currently being executed by Abengoa Peru are the Manchay and ATN agreements:

- The "Expansion and Upgrading of the Manchay Drinking Water and Sewage System" project is being executed within the framework of the Peruvian government's "Water for Everyone" program. It is the largest project under this program and is valued at more than 100 MPen. The project will benefit more than 40,000 economically underprivileged inhabitants by providing them with water and drains. The scope of the work includes the design, supply, preparation of lands and construction of the entire system.
- ATN. In February 2008, Abengoa Peru SA was awarded the concession of the "Carhuamayo – Paragsha – Conococha – Huallanca – Cajamarca – Cerro Corona – Carhuaquero Transmission Line" project following an open international bidding process under an integral project framework, meaning the concession includes the design and construction, and subsequent 30-year administration, operation and maintenance of the aforesaid line. Spanning nearly 670 km, this transmission line is routed through six departments in the northern mountain range of Peru: Pasco, Junín, Huanuco, Ancash, La Libertad and Cajamarca. Its average height is 3,200 m.a.s.l. Its main objective is to strengthen the National Interconnected Electric System (SEIN) to allow greater capacity of energy transmission to this important part of the country, which is experiencing rapid growth – especially in the mining sector. For Abengoa Peru, this transmission line is its first major concession contract as it will not only conduct its design and construction, but will also control its administration, operation and maintenance for the next 30 years. This will open up a new business horizon as a provider of high voltage electricity transmission services and a supplier of integral energy transmission solutions on a national scale.



### Bargoa

Bargoa centers its business on manufacturing and marketing a wide range of products for telecommunication network installations and exchanges.

Its engineering team designs the products its customers require and also develops the injection and forging molds that allow it to manufacture the different components of the end product.

The company's main customers during the year were Brazil's telephone operators. Of note was Bargoa's increased business with private, non-traditional, customers in Brazil. Abroad, the company maintained its presence in the Central and South American markets and in those of North America, Japan and Korea.

### Abeinsa New Horizons

Hynergreen channeled more than 2 M€ into Research and Development during the year, without taking into account its R&D&i undertakings for third parties.

ZeroEmissions maintained its 23 M€-plus investment in the main international carbon funds: the Fondo de Carbono para la Empresa Española (Spanish Company Carbon Fund), the Fondo Español de Carbono (Spanish Carbon Fund), the Multilateral Carbon Credit Fund, and the BioCarbon Fund. Furthermore, ZeroEmissions was appointed to the governing body of the Spanish Carbon Fund in 2008 for one year to advise the World Bank on matters relating to fund operations.

### Hynergreen

Hynergreen Technologies, S.A. is the Abeinsa and Abengoa Company dedicated to hydrogen as an energy vector and to fuel cells as electric energy production systems. Committed to the Environment and Sustainable Development, the company offers solutions based on these technologies for different sectors thanks to its continuous R&D&i activities.

In 2008, Hynergreen has increased its 2007 R&D&i investment to move to the forefront of the sectors it operates in. These investments were mainly directly by Hynergreen's workforce, and also through contracts with the main Public Research Bodies and Universities, both Spanish and international.





Some of the projects fully or partially completed during the year are listed below:

- Project Aquila. The objective of the 24-month project Aquila – completed in 2008 – was to analyze different options for generating electric energy on board airplanes in a distributed and environmentally sustainable manner utilizing different technology fuel cells, and to study the possibility of carrying the hydrogen on board or producing it as it is consumed in the plane itself. The project also analyzed the performance of different devices when subjected to typical aircraft conditions. The project was backed by the Innovation and Development Agency of Andalucía (IDEA) and the Technology Corporation of Andalucía (CTA).
- Project EPiCo. The main objective of the 42-month project EPiCo – completed in 2008 – was to coordinate the research work of the main Spanish companies involved in developing different types of polymer electrolyte membrane (PEM) fuel cells, each of which has been proven in different applications developed to this end. Five partners participated on EPiCo: Ajusa, Cegasa, Cidetec, INTA, and Hynergreen. As integrators, different prototypes were developed at Hynergreen (autonomous systems, battery chargers, etc.) with the fuel cells developed on the project. EPiCo was backed by the Ministry of Science and Innovation, which considered it a Unique Scientific-Technological Project of Strategic Importance.
- Project Hercules. The objective is to establish a renewable hydrogen service station in Sanlúcar La Mayor (Seville), where the hydrogen will be produced from solar energy. A fuel cell powered vehicle that utilizes the hydrogen supplied by the service station is also being developed. With an overall budget in excess of 9 M€, the project boasts the backing of the Innovation and Development Agency of Andalusia (IDEA), and the Ministry of Science and Innovation, which considers it a Unique Scientific-Technological Project of Strategic Importance. Project Hercules is an Andalusian initiative under the global coordination of Hynergreen. The eight promoters of the project comprise five companies, one public agency and two research centers: Hynergreen, Abengoa Solar NT, Santana Motor, Carbueros Metálicos, GreenPower, the Energy Agency of Andalusia, INTA and AICIA. The 42-month project got underway in January 2006, and the consortium has been working on developing the prototypes over 2008, with testing thereof being left for 2009.



Of note among the most important lines of R&D&i are the renewable hydrogen production technologies (mainly from biofuels or solar energy – photovoltaic as well as thermal), storage and manipulation thereof (with developments in carbonous and metal hydride structure storage systems), or our auxiliary systems for fuel cells, with power conditioners, controllers, cooling circuits and others.

In order to collaborate on the rapid development of its chosen technologies, Hynergreen participates in various associations and platforms dedicated to promoting the standardization, diffusion and implementation of fuel cells and of hydrogen as an energy vector. Some noteworthy examples during the year were:

- Active participation on the Technical Subcommittee for Standardization of Fuel Cells, which operates under the auspices of AENOR's Technical Committee for Standardization of Electric Energy Production (AEN/CTN206/SC105), where it coordinates several work groups.
- Vice-presidency of the Spanish Hydrogen Association (AeH2).
- Vice-presidency of the Spanish Fuel Cells Association (Appice).
- Presidency of the Spanish Hydrogen and Fuel Cell Technology Platform, which is backed by the Ministry for Science and Innovation.
- Participation on the Advisory Council to the European Hydrogen and Fuel Cell Technology Platform, promoted by the European Commission.
- Participation as a founder member in Industry Grouping which, together with the European Commission, promotes the Fuel Cells and Hydrogen JTI (Joint Technology Initiative).

### ZeroEmissions Technologies

ZeroEmissions experienced major growth in 2008. Its workforce rose to 40 and it completed the year with subsidiaries in Rio de Janeiro, Beijing, Mumbai and Moscow, and active presence in Brussels, Washington and Rabat.

ZeroEmissions was established in 2007 to agglutinate and direct Abengoa's carbon activity with one specific mission in mind: to offer solutions to climate change by promoting, developing and trading carbon credits; the corporate carbon strategy; voluntary compensation of emissions; and innovation in greenhouse gas reduction technologies.

The consultancy service for emission reduction projects (CDM and JI projects) increased significantly during the year. In addition to the 2007 projects undertaken in China and India, namely at Two Lions chemical plant and Chennai desalination plant, 2008 witnessed the arrival of four other projects in India for the company BMC, and another four in Brazil, two for Dedini Agro and the other two for Grupo Bertin and Cooperativa Lar.



In 2008, ZeroEmissions was appointed by the Government of Morocco to identify potential emission reduction projects in the country, and to develop the PDDs (project design documents) for six of these projects, which will be presented to the United Nations to generate carbon credits.

Training in carbon-related activities is one of ZeroEmissions' major aims, and the company has been working very closely with the Focus-Abengoa Foundation and the International Emissions Trading Association (IETA) to launch the first carbon training course of its kind in Spain: 120 hours over two very intensive weeks that allowed the participants/students to converse with the sector's leading figures and specialists in emission reduction technologies, CO<sub>2</sub> trading, carbon legislation and climate change, among others.

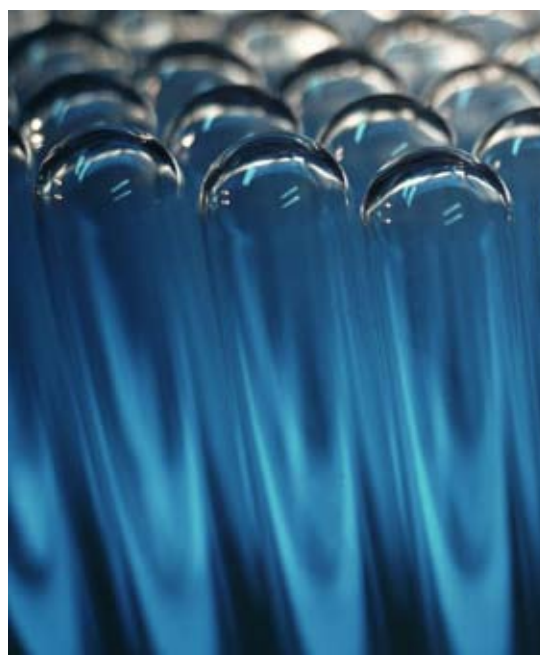
As regards compensation of CO<sub>2</sub> equivalent emissions, ZeroEmissions offset the activities of Telvent's Valgrande headquarters and of the world's largest on-line entertainment event, the 2008 Valencia Campus Party.

During the year, the certification and labeling team developed consultancy services for emissions inventories for external companies such as Mutua Universal.

As regards R&D&i in 2008, ZeroEmissions participated in the "Magnetic Cooling Systems: Optimization of Materials and Design of a Device" project subsidized by the Ministry of Science and Innovation under the National R&D&i Plan. This project has great emissions reduction potential, as the objective is to substitute the HFC gases used for cooling – which also have a high global warming potential – with zero-emission magnetic materials.

Likewise in 2008, ZeroEmissions diversified its consultancy activity with design proposals for sustainable mobility plans applied to trading centers or entire cities.

As regards trading, the company conducted CER/EUA swap transactions over 2008. This swap system allows facilities subjected to emission quotas to optimize their emission rights assignments and obtain additional resources for them.





The company also prepared an inventory of all its greenhouse gas emissions for 2007 to subsequently offset them with carbon credits and thus become one of the first consultancy firms in the world to offer its customers zero CO<sub>2</sub> services.

### **New renewable energies**

In 2008, Abeinsa launched several projects to evaluate the interest and potential of new renewable energy sources. As a result of these surveys, the Ocean Energies Division was established in November. Its objective is to develop technologies that harness ocean wave and current energy.

### **CO<sub>2</sub> capture and valorization**

The year saw the launching of different projects linked with CO<sub>2</sub> capture and valorization. This is an area with enormous potential and will be one of Abeinsa's major activities in the future.

### **Energy efficiency**

R&D&i in energy efficiency is another field Abeinsa will participate in very actively in the future. Work has been carried out in this field for more than a year now and, in 2008, the first project linked with consultancy services in energy efficiency was launched.