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The world
needs solutions
that will
pave the way
towards more
sustainable
development

Abengoa is convinced that the world needs solutions to drive more sustainable development. In harmony with this vision, the company made the decision more than a decade ago to focus growth on creating new technologies that contribute to sustainable development. This guiding philosophy, which spurs Abengoa to develop innovative solutions for sustainable development, has been instilled throughout the entire organization, and thus defines corporate mission and vision¹.

Growing social awareness and the resulting public pressure is bringing about tougher regulatory frameworks, which is ultimately the most visible manifestation of a change in paradigm on a global scale.



Risks and Opportunities

As a result of this shift, corporations are finding that they need to adapt to certain legal and social demands that subject them to a wide range of risks they must attempt to mitigate, including the following:

- First of all are the **reputational risks** involved; brand image may be affected if stakeholders in general perceive a negative attitude on the part of the company.
- **Regulatory risks** also arise, associated with the need to adapt the company to new legislative frameworks, entailing costs that may render certain activities unviable.
- **Legal risks** take on a great deal of importance, for more stringent legislation may give rise to an increase in the number of lawsuits involving non-compliance.

¹ See chapter titled Abengoa Profile

- Furthermore, there are **physical risks** entailed: Climate change could create problems for installations and lead to serious consequences; the truth, however, is that there will be no need to wait for the first significant environmental effects to be appreciated for climate change to have an impact on business activity. At the beginning of 2010, a cold snap caused serious damage to Florida orange crops, with the knock-on effects rapidly moving to the financial markets, where the price of orange juice rose sharply. The sadly famous earthquake in Haiti caused significant damage to the region, and the repercussions thereof were felt around the world, as many countries embraced commitments to provide financial assistance, which necessarily takes resources away from other territories and activities. Furthermore, the European air traffic crisis resulting from the eruption of a volcano in Iceland provides a further prime example of a localized environmental incident bringing on a global crisis, accentuated by the rigidity of our actions coupled with the fact that our economic systems do not incorporate these types of situations into their analysis and lack the corresponding flexibility in their response capability.
- **Risks associated with corporate value**, in that sustainability indices assess companies according to their sustainability policies, thereby guiding investors.
- Finally, there are **other risks** that are difficult to evaluate, such as market changes. For example, rising pressure to lower emissions may afford certain territories an advantage over others due to their natural resources (access to solar radiation, for instance), thereby altering the competitive balance.



Nevertheless, just as these risks surface, so do new business opportunities that coincide with the risks, albeit in the opposite direction:

- **Reputational opportunities.** Businesses with a proactive approach to climate change will be favored by customers, who will take their hard work into account.
- **Regulatory opportunities.** Boosting innovation in certain business undertakings that may simultaneously lead to lower costs and a reduction in greenhouse gas (GHG) emissions.
- **Legal opportunities.** As competing companies that do not abide strictly with prevailing legislation see their costs go up as a result of environmental lawsuits, organizations which duly fulfill their commitments will have the chance to be more competitive.

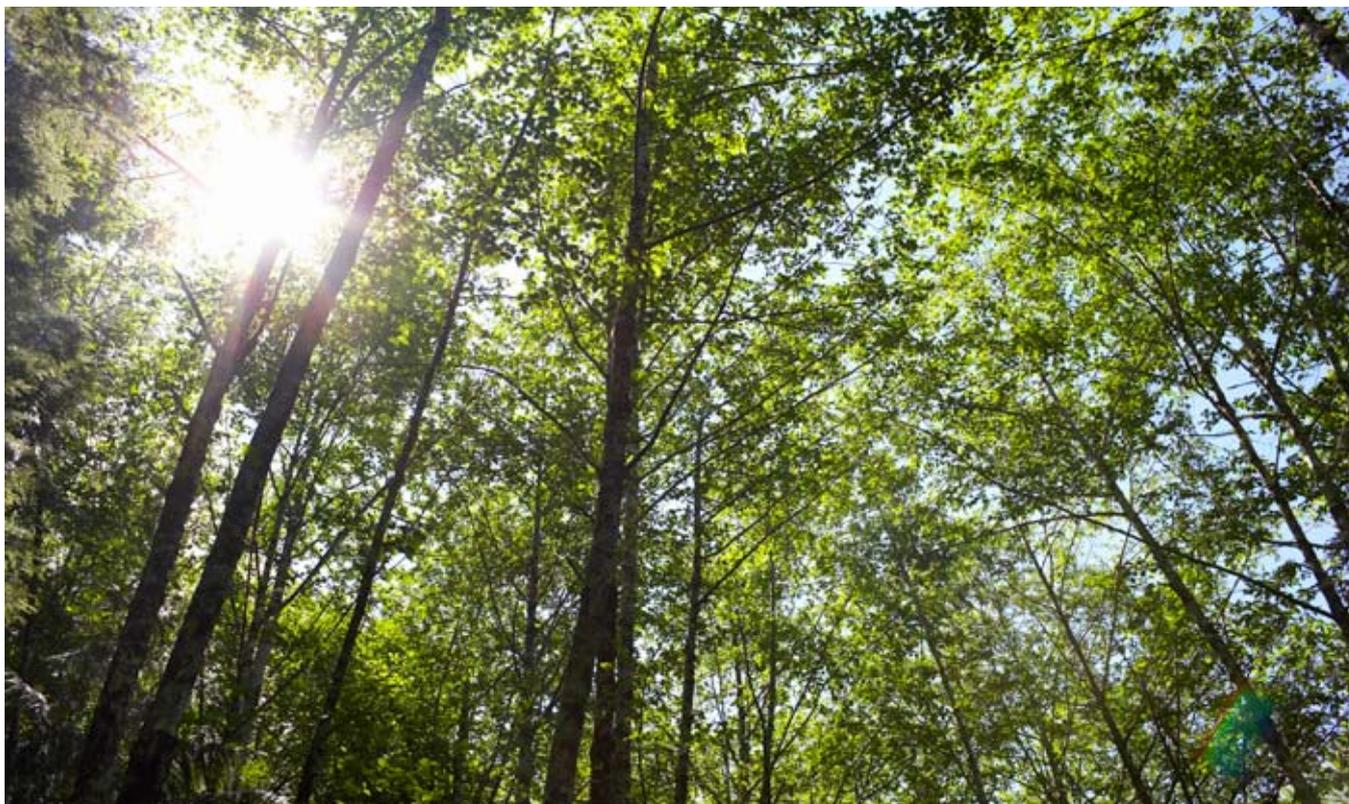
We must be sure to manage both the risks and the opportunities associated with climate change and sustainability

- **Other opportunities.** Sustainability-related innovations in which Abengoa is currently working (solar energy, sea and ocean power, hydrogen technology, energy efficiency, second-generation biofuels, CO₂ capture and valorization, etc.) have the potential to become the key businesses of the future.

Sustainability policy must help to manage both the risks and the opportunities associated with climate change and sustainability. This makes it necessary, on the one hand, to ascertain, understand and manage all types of risks, and, on the other, to identify, gauge and manage potential opportunities, all of which hinges on appropriate measurement tools, a suitable reporting system and plans for improvement.

Managing Sustainability

Abengoa has a sustainability policy that has been clearly defined within the company's internal regulations, a risk management system including environmental risks, a GHG emissions inventory, and specific emission reduction programs for all of its business units.



Specifically, various elements should be mentioned that make Abengoa a benchmark company in the realm of sustainability and the struggle against climate change:

- **Abengoa's General Sustainability Department**, which promotes and coordinates all efforts dedicated to environmental sustainability and climate change, embraces the mission of promoting strategy and guidelines to gear Abengoa businesses towards sustainable development.²
- **The Common Management Systems**, which help to align operational, tactical and strategic decisions with Abengoa's vision of sustainability and approach to combating climate change.
- **The GHG emissions inventory.**³

² See chapter titled Environment and Sustainable Development

³ See chapter titled Greenhouse Gas Inventory

- Proprietary capability for **managing emissions** through Zeroemissions, a company created in 2007 to provide global solutions to climate change through the promotion, development and marketing of carbon credits, strategic carbon consulting, voluntary emissions compensation, and innovative GHG reduction technologies.
- 2010 was a year of tremendous **progress** for Zeroemissions. Highlights for the year were as follows:
 - Ninety CDM (Clean Development Mechanism) business opportunities in carbon markets were evaluated, and agreements were signed with more than ten companies in ten different territories to carry out CDM projects.
 - Development of the methodology for risk analysis and technical and legal audit of CDM projects.
 - ISO 9001, 14001 and OHSAS certification was obtained in Brazil and Spain.
- **Progress in activities involving CO₂ capture and storage** and energy efficiency. Significant R&D developments this year include, for example, achievements in the area of energy optimization in combined-cycle and gas turbine control containers.
- **Ongoing communication** with all company employees regarding the importance of including environmental variables and striving to halt climate change in the way they perform their duties. Among other communication tools, the following are employed to transmit these messages: In-house bulletin, namely Connect@, and the Abengoa Intranet. In this regard, a key development in 2010 was drawing up a **sustainable mobility** program for the entire Abengoa group. In the specific case of Campus Palmas Altas, a virtual sustainable mobility office was set up on the Intranet and includes a description of all measures to be implemented in order to lower the number of personal vehicles used for commutes to and from the facility.



Winning photograph taken by Pablo Manuel Martín Pastor of Zeroemissions at the II Abengoa Sustainable Development Photography Competition

Climate Change, an Overarching Priority

All of these lines of action converge upon a common objective, that is to combat climate change through an unflinching commitment to sustainable development and by integrating this commitment into company strategic planning as follows:

- Abengoa is rethinking its present business activity from the **perspective of sustainability** and focusing on future business pursuits while taking environmental and sustainable development-related factors into consideration.
- Abengoa wishes for its products and services to not only be conducive to sustainable development, but also for them **to be realized in a way that is sustainable**, meaning that the company can measure and validate their degree of sustainability through instruments that are transparent and readily recognizable by the market and by society at large.

The company has been working along these lines for some time now, and, in addition to its emissions inventory, the company is engaged in significant initiatives to help combat climate change:

- Abengoa is listed on the [FTSE4Good Index](#) and a participant in the [Carbon Disclosure Project \(CDP\)](#). The company's CO₂ emission volumes were disclosed for the first time in 2010.
- Abengoa participates in four carbon funds:
 - **Spanish Carbon Fund (Fondo Español de Carbono, or FEC)**, which carries out projects in renewable energies, gas destruction, energy efficiency and solid waste, primarily in Latin America.
 - **MCCF (Multilateral Carbon Credit Fund)**, which invests in projects in Europe and Asia associated with renewable energies, gas destruction, energy efficiency and solid waste.
 - **Spanish Business Fund (FC2E)**, investing in global projects.
 - **Bio Carbon Fund** Europe and Asia.



In addition to this, potential new investments were actively pursued throughout 2010 in markets of interest to the company.

- Abengoa is applying **VERs (Voluntary Emissions Reductions)** to certain activities in order to neutralize the associated CO₂ emissions. In 2010, for example, the [Focus-Abengoa Foundation](#) neutralized the emissions from its Seville headquarters using the credits generated through a hydraulic project in Turkey.
- Through the Focus-Abengoa Foundation, Abengoa created a [Forum on Climate Change](#). This platform seeks to promote, through initiatives fostering public debate, **an open platform for research, presentation and contrasting of ideas** and results in connection with renewable energies and climate change. The forum concentrates on fields in which Abengoa specializes, thereby allowing the company to make significant contributions to the different areas of international, industrial and technological relations and pursue other types of endeavors. Forum developments in 2010 included a new edition of the School of Energy and Climate Change, which, opened by Josep Borrell, focused on the economic implications of the fight against climate change.
- Through Zeroemissions, Abengoa carried out its first initiative involving specific **Carbon Training** in Spain, with the first edition of the program taking place in 2008. This initiative seeks to train professionals worldwide through a global, integrative approach to carbon markets. A new edition, in this case in collaboration with the Spanish School of Industrial Organization (Escuela de Organización Industrial, or EOI), was held in 2010.
- Abengoa has made [Campus Palmas Altas](#), Abengoa's headquarters in Seville, a global **model for sustainable architecture and construction**.
- Abengoa has also undertaken **important activities** in the area of **renewable energies, recycling, systems and infrastructures**, all of which have contributed to preventing the emission into the atmosphere of millions of tons of CO₂.

In summary, with the aim of achieving business objectives and upholding its commitment to sustainability and the struggle against climate change, Abengoa:

- Invests in research, development and innovation (R&D+i).
- Expands technologies promising the highest potential.
- Develops the required talent, attracting and retaining the finest human resources.

Furthermore, through the Focus-Abengoa Foundation, Abengoa also dedicates human and economic resources to promoting social action policies that contribute to human and social progress.

No Co₂pollution Stamp

As part of its commitment to sustainable development, Abengoa has created the first postage stamp in the world that **offsets the CO₂ emissions** from sending an ordinary letter in Spain. This service broadens the company's commitment in the social and human area, offering the chance to reduce the carbon footprint generated by postal deliveries.

By purchasing the **"No Co₂pollution" stamp**, customers will offset the emissions generated by the letter by investing the corresponding amount of money in the 15 MW Kalealti hydroelectric station emissions reduction project in Turkey.

This collectors' edition has a postage value equivalent to one ordinary letter sent in Spain. In addition to the self-adhesive stamps, the purchase will include a "No Co₂pollution" carbon offset certificate issued in the name of the buyer, which provides technical details of the project in which the funds will be invested. Each stamp costs 2.10 €, plus delivery, and can be purchased via the online auction [platform Ebay](#).

Thanks to this novel initiative, Abengoa aims to help users of the postal service to contribute to carbon emissions reduction targets, encouraging them to strengthen their commitment and respect for the environment.



Hynergreen unveiled the renewable hydrogen service station for the Hercules Project

On June 16, the regional minister of Economy, Innovation and Science of the Regional Government of Andalusia, Antonio Ávila Cano, and the Mayor of Sanlúcar la Mayor, Raúl Castilla Gutiérrez, together with José Domínguez Abascal, Abengoa's general technical officer, and Javier Brey, general director of Hynergreen, inaugurated the **renewable hydrogen service station of the Hercules Project**, located at the Solúcar Solar Complex in Sanlúcar la Mayor, Seville (Spain).

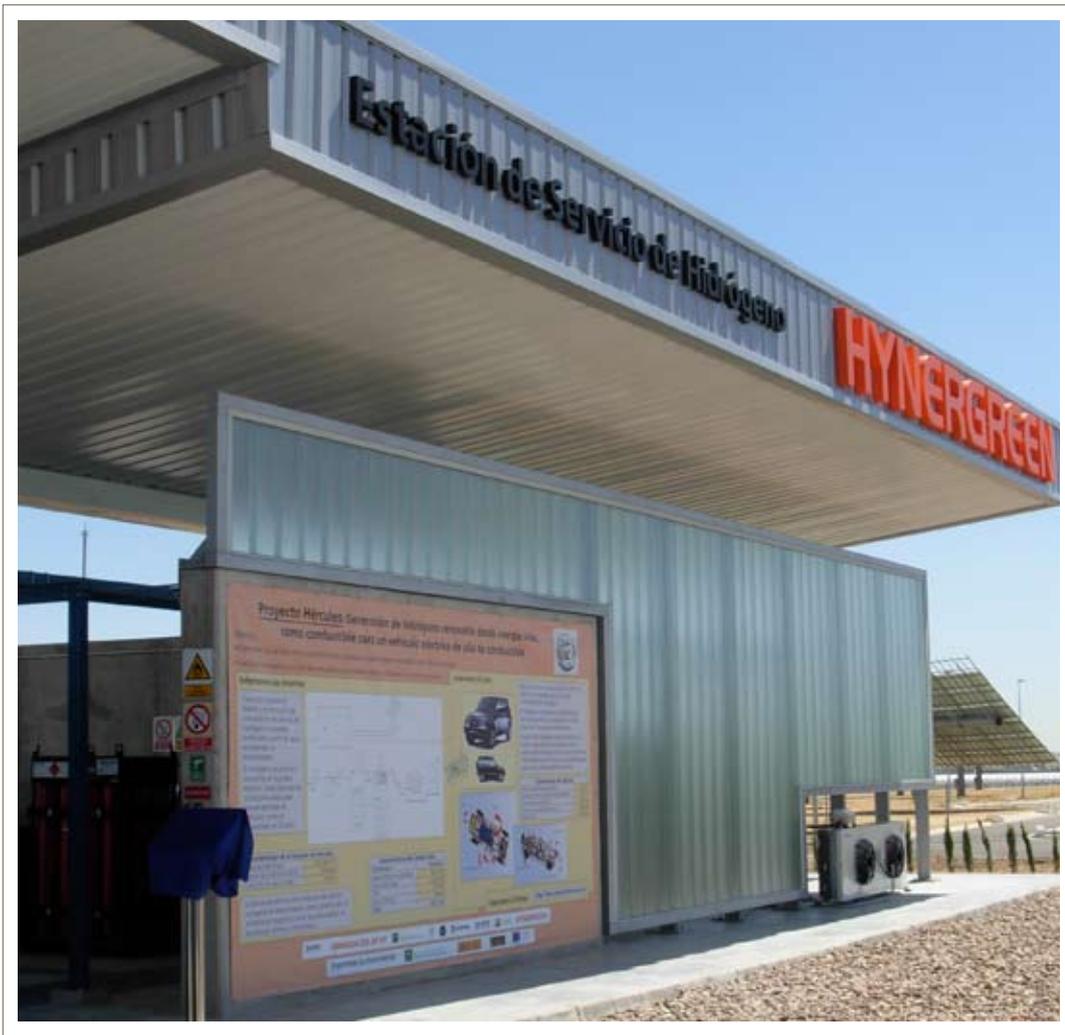
This hydrogen service station, the first in southern Spain and one of only a handful in existence worldwide, **will produce hydrogen from solar energy**. It is part of the Hercules Project, an Andalusian initiative coordinated globally by Hynergreen, and receives funding from the Andalusian Agency for Innovation and Development (IDEA) and the Ministry of Education and Science, which has categorized the project as being a strategic and unique scientific and technological project.

As part of the project, in collaboration with Santana Motor, a fuel cell-powered electric vehicle was also developed, employing the hydrogen supplied at this service station.

During the inauguration, José Domínguez Abascal, Abengoa's general technical officer, stressed the importance of a station with these characteristics in "demonstrating our solid commitment to hydrogen as an alternative fuel that is renewable, clean and sustainable".

In turn, Javier Brey, general director of Hynergreen, pointed out that "Hynergreen R&D investment in these technologies in recent years totals more than €10 M".

The Hercules Project, which began life in January 2006, has a budget of more than €9 M, and boasts the involvement of Solúcar R&D (Abengoa Solar), Santana Motor, Carburos Metálicos, GreenPower, the Andalusian Energy Agency, INTA and AICIA.



2010 Milestones

- In May, the Focus-Abengoa Foundation and FO Licht inaugurated the ninth edition of the World Biofuels Conference: “World Biofuels 2010”.
- In June, Hynergreen inaugurated the hydrogen service station for the **Hercules Project** in Sanlúcar la Mayor.
- Campus Palmas Altas, Abengoa’s headquarters in Seville, won first prize in the 2010 Prime Property Awards for Sustainable Real Estate Investment from Union Investment Real Estate AG, one of Europe’s leading real estate management companies, and an award for architectural excellence from the Royal Institute of British Architects (RIBA), equivalent to the British Council of Architects, in addition to LEED Platinum pre-certification.
- Abengoa set up **sustainability committees** at the business unit level. These committees are supported by the General Sustainability Management Department to assist in carrying out the range of initiatives in progress and to standardize best practices.
- Abengoa drew up a policy for sustainable mobility throughout the Abengoa group, and, in the specific case of Campus Palmas Altas, a **virtual sustainable mobility office** was included for this company facility on the corporate Intranet.
- Abengoa **disclosed the company’s CO₂ emission volumes** for the first time.
- New editions of Carbon Training and the School of Energy and Climate Change were held.



Photograph taken by Guillermo Valero Maestro of Befesa and entered into the II Sustainable Development Photography Competition

Areas of Improvement

There are three main areas for improvement associated with Abengoa's commitment to sustainability:

- Improving the computer application enabling GHG inventory management. The objective is for this tool to be fully linked to the purchasing application and to the budget reporting systems, thus allowing the company to obtain consolidated data pertaining to the relevant sustainability indicators (GHG, GRI and ESI).
- Completing implementation of the Environmental Sustainability Indicator (ESI) system
- Labeling of Abengoa products, which will enable the company to project its commitment to sustainability through its products⁴.

Future Goals and Objectives

Over the course of 2011, a tool linked to the purchasing application and to budget **reporting systems** will be completed. This will help **to enhance management of emissions and emission reduction schemes**. This application is part of the comprehensive sustainability management system that will enable the company to obtain consolidated data pertaining to relevant sustainability indicators (GHG inventories, Global Reporting Initiative- GRI and Environmental Sustainability Indicator- ESI). It will also include the added feature of allocating emissions to Abengoa products and services.

⁴ See chapter titled Abengoa and the Environment

Another key objective for the coming year is to **finalize implementation of the Environmental Sustainability Indicator (ESI) system**, which incorporates nine environmental factors upon which Abengoa business may exert some type of pressure in order to conduct in-depth analyses of the environmental impact generated.

Finally, two further objectives sought for 2011 are to obtain **ISO 14064 certification** of group company GHG inventories, as well as **ISO 14067 product labeling certification**. This will enable Abengoa to enhance the quality and maturity of the greenhouse gas inventory, assure ongoing positive validation of the inventory in external auditing, and pursue further advancement as a result of the inventory.

Photograph taken by M^a Encarnación Díaz Llorente of Abener and entered into the II Sustainable Development Photography Competition

