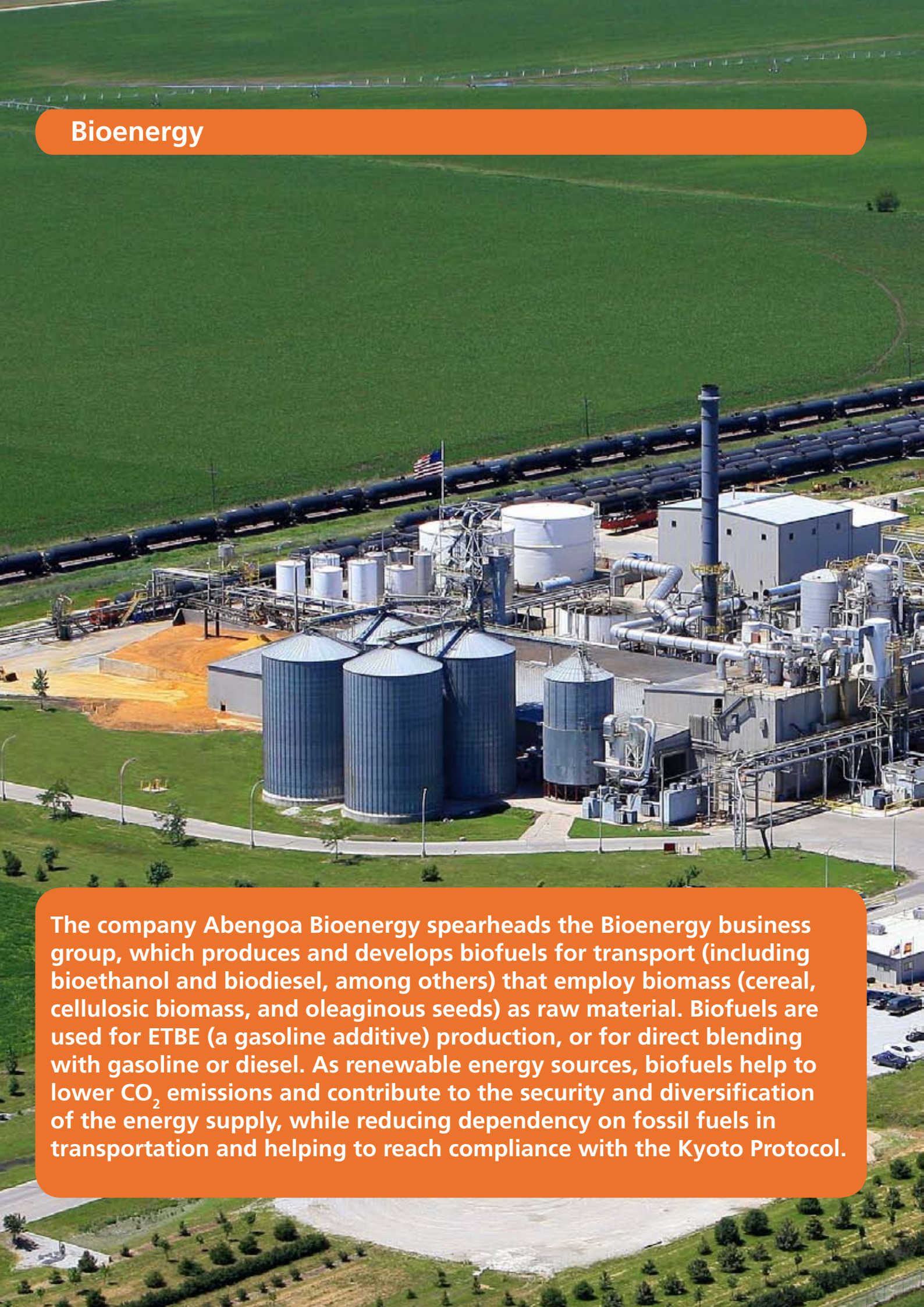
Bioenergy



The company Abengoa Bioenergy spearheads the Bioenergy business group, which produces and develops biofuels for transport (including bioethanol and biodiesel, among others) that employ biomass (cereal, cellulosic biomass, and oleaginous seeds) as raw material. Biofuels are used for ETBE (a gasoline additive) production, or for direct blending with gasoline or diesel. As renewable energy sources, biofuels help to lower CO_2 emissions and contribute to the security and diversification of the energy supply, while reducing dependency on fossil fuels in transportation and helping to reach compliance with the Kyoto Protocol.

www.abengoabioenergy.com

International Presence

Our business

Abengoa Bioenergy remains a benchmark company in the development of New Technologies for the production of biofuels and the sustainability of raw materials, channeling to such end a tremendous amount of resources into research. Its Trading division also positions the company as a service provider able to offer global solutions, with an impressive ability for marketing and managing commodities, reliably backed by its global production capacity, raw material procurement and highly efficient operations – cornerstones that afford reliability and critical mass, which are key to optimum business development.

Abengoa Bioenergy's international marketing and cellulose bioethanol technology capacities, coupled with its farming, productive and local marketing capacities, will give rise to very important synergies enabling the company to register significant growth in the world bioethanol market and to obtain the technology that will help to achieve lower costs per gallon of ethanol.

Abengoa Bioenergy contributes towards sustainable development by placing fuel compounds obtained from renewable sources (biofuels) on the market through the use of environmentally-friendly technologies that help to achieve a net reduction in polluting emissions, for use in public transportation and private vehicles.

Abengoa Bioenergy develops innovative technological solutions through continuous R&D investment. These solutions are put into practice in production processes, allowing the company to enjoy the same production costs as for conventional fossil fuels, while affording our DGS co-product a competitive edge.

Abengoa Bioenergy upholds its commitment to shareholders in the creation of value, and contributes to the personal and professional development of its employees through continuous training and by establishing and following up on individualized plans.

Abengoa Bioenergy creates new opportunities for sustainable rural development, since it encourages energy crops and the creation of farming industries, thus helping to maintain employment and income levels in rural areas.

Bioethanol and biodiesel are renewable and clean energy sources which, for some time now, have proved to be a reliable and effective replacement for gasoline and diesel fuel in vehicle engines, while helping to diversify and improve the security of the energy supply. Their use, either in a pure state or blended with fossil fuels, reduces CO_2 emissions, slows down climate change, and reduces the emission of polluting agents into the environment.

The company's activities can be grouped into five major areas:

- Raw material procurement.
- Bioethanol origination.

- Production.
- Bioethanol, DGS and sugar trading.
- New technologies.

Raw material procurement

One of the driving forces behind the positive business results reported by the Bioenergy business unit is the acquisition of raw materials for producing the biofuels.

The most important grain cereals for the production of bioethanol at Abengoa Bioenergy's plants are currently wheat, barley, corn and sorghum, not only because of their alcohol yield, but also due to their significant proportion of protein, highly valued in the livestock feed sector (DGS). As for biodiesel production, the most frequently used oils are soy and palm.

Throughout its history, Abengoa Bioenergy has managed to build up a great deal of experience in both the supply and logistics of raw materials. It has displayed great prowess and versatility on the international stage and also when purchasing on the domestic market, and has reached direct supply agreements with farmers, thus ensuring that the group's plants have the amount of cereals they need. Similarly, the company has in-depth knowledge of the applicable regulations for operating in the European Union and within the U.S. government.

At Abengoa Bioenergy Brazil, the company grows sugarcane while maintaining sustainable rural development methods, biodiversity, and regional economic growth. Its subsidiary Abengoa Bioenergía Agrícola guarantees the company's production plants are supplied by signing contracts with landowners, carrying out the necessary tasks for combined use of the land, and with farmers, by providing the necessary resources and consultancy in order to achieve optimal performance.

Bioethanol origination

In addition to Abengoa Bioenergy's own bioethanol production capacity, which is marketed by the trading subsidiaries, bioethanol origination from third-party producers also represents a large part of the business, adding

further capacity to a common pool, which allows for greater flexibility and competitiveness in terms of the customer portfolio.

Production

Bioethanol is produced in plants across Europe and the U.S., and more recently in Brazil. Bioethanol is obtained from cereal grain, through chemical processes and treatment, to produce either ETBE (a component of all types of gasoline), or for direct blending with gasoline, obtaining biofuels, mainly e85 (a mixture of 15% gasoline and 85% bioethanol), but also as e10 (90% gasoline and 10% bioethanol). The DGS co-product is obtained during the bioethanol production process. This is a compound with a high protein content resulting from the extraction of the starch in cereals, and is ideal for the production of livestock feed.

The production of bioethanol from sugarcane also returns sugar as a by-product. This sugar is processed to make it suitable for human consumption and for further use in producing other food products.

Abengoa Bioenergy currently owns 10 bioethanol and DGS-producing plants distributed throughout Europe, the United States, and Brazil, which provide a total installed production capacity of 390 Mgal per year. The company also has several others under construction or in the project phase in both Europe and the U.S..

Bioethanol, DGS and sugar trading

Abengoa Bioenergy has set up offices in key places for global bioethanol trading: in Rotterdam, the Netherlands, with immediate access to Europoort and exports; in St. Louis, Missouri, in the U.S., in the heart of the country's main cereal production and cattle breeding area; and in São Paulo, Brazil, the birthplace of bioethanol-from-sugarcane production. Through all of them, Abengoa Bioenergy is able to meet the bioethanol, DGS and sugar demand of the European, American, and Brazilian markets.

Market fluctuations, political conditions in the different geographical areas and other factors affecting company activities, both in terms of acquisition of raw materials, and in production of marketed products, are carefully

analyzed from a global perspective in order to obtain a better vision of the global markets. Meticulous analysis and risk management yield higher performance of the production processes, always within the scope of sustainable development, while respecting the environment, human rights and the community as just one of the company's guiding principles. Abengoa Bioenergy is therefore able to offer its clients the option of selecting the solution that best meets their needs, providing the necessary reliability and flexibility throughout its bioethanol supply process.

2008 in review

2008, for Abengoa Bioenergy surviving is not enough…

The continuous economic downturn experienced by the major economies of the world and market volatility played center stage during 2008. Faced with this complicated economic reality, Abengoa Bioenergy has successfully continued to position itself as a leading company in renewable energies and, more specifically, by working towards the replacement of the current energy model of the transport sector, based on fossil energy, with another model based on renewable energies, such as biofuels. Moreover, taking into account that the transport sector represents approximately 25% of Greenhouse Gas Emissions, an increased use of biofuels is particularly important in reaching this goal.

Abengoa Bioenergy has continued to innovate in the area of biofuels obtained from lignocellulosic biomass, a raw material which is usually discarded during the production of biofuels and which provides important environmental advantages, as the energy obtained while they are produced is optimized and Greenhouse Gas Emissions are reduced to a greater extent.

The company has also enjoyed considerable success through continued use of its risk management system, maximizing returns in these trying times while minimizing exposure to extreme situations, thus ending the year with the best results in its history in terms of absolute margins and sales.

This was made possible partly due to the increase in the demand for bioethanol, up by 30% in Brazil as a consequence of domestic market growth through flexible-fuel vehicles (90% of new registered vehicles employ the flexible-fuel system). Europe and the United States experienced a 47% and 25% increase in growth respectively, due to unprecedented legislative support.

Against this legislative backdrop, the approval of the Renewable Energy Directive in Europe ushered in a new era focused on energy efficiency and the production of renewable energies, which foster more sustainable development. The new legislation aims to bring the percentage of renewable energy within the transport sector up to 10% by 2020, which is approximately the equivalent of multiplying current use by five, and to encourage the development of second-generation biofuels by granting a higher tax credit, which will undoubtedly stimulate investments in new technologies. This legislation joins legislation already approved in the United States, both in the new Farm Bill and in the Energy Bill, where a target of 15,000 Mgal (approximately 57,000 ML) has been set for conventional ethanol in 2012, and up to 21,000 Mgal (approximately 80,000 ML) of ethanol in 2022. The bills aim to achieve this through the use of raw materials that improve the life cycle by at least 40%, and offers significant production incentives for lignocellulosic ethanol production. Both legislative initiatives enable us to picture an investment scenario in the sector that will enable us to reach industry targets. In accordance with the new Renewable Energy Directive in Europe, several countries, including Spain, have published legislation setting the minimum mandatory targets for the use of biofuels. This will facilitate the creation of short-term demand.

Volatility has been the constant feature over 2008. The market went from being a market of worldwide demand, driven by the uncontrolled consumption growth in emerging countries, to being a market of uncontrolled destruction of this demand, as the major economies went into recession. As a consequence of these changes, for example, WTI crude oil

prices soared to $145/barrel, before closing the year at below $50. The price of cereal dropped from levels of 250 € /t, to prices close to the intervention price in Europe, and from $8/bushel in the United States, to levels of $4/bushel.

2008 was a year of consolidation and growth in the United States, Europe and Brazil:

In the United States, construction has continued on two new ethanol plants, with a joint capacity of 180 Mgal, in the states of Indiana and Illinois, after successfully closing their non-recourse financing. We have also started the engineering work and requested the permits for the project under development together with the DoE, in the State of Kansas. This will be the first plant to produce ethanol from biomass on a commercial scale. The plant will process 700 metric tons of biomass per day in order to produce 12 Mgal of ethanol per year, in addition to other renewable energies, specifically electricity and steam.

In Europe, we successfully started up operation of the plant in Lacq, France in August. This is Abengoa Bioenergy's biggest plant in Europe, with a production capacity of 66 Mgal, using approximately 500 Mt of cereal per year. During 2008, we continued construction on the plant in Rotterdam, Holland, which will be the largest bioethanol plant in Europe and one of the biggest plants in the world, with a capacity of 127 Mgal. Construction work is expected to be completed by the beginning of 2010. We also continued with construction work on the biodiesel plant in San Roque, with a capacity of 60 Mgal, which will use crude vegetable oils as raw material and will go into operation during the first quarter of 2009.

In addition to the projects mentioned above, we launched two cogeneration plants in Brazil annexed to the existing plants in the state of São Paulo. These two plants are currently operating under some of the most competitive production costs in Brazil and worldwide, due to the excellent location of these plants, personnel expertise and the direct control of a significant part of farmland by means of long-term contracts.

Finally, and in addition to the collaboration program with the DoE, we are continuing to conduct Research and Development programs in the United States, among which we would highlight the project signed with the Spanish Government against the backdrop of the CENIT Program, for a total of 35 M€. This will enable progress in bioethanol production technology through the gasification of biomass and through catalytic synthesis.

… and our financial results keep improving …

Suitable asset operation, geographic and product diversification, and proper risk management have enabled us to maximize returns despite gloomy economic conditions, ending the year with the company's best results ever in terms of absolute margins and sales.

The company reported significant growth in sales, brought on by increased product pricing and sales volume both in Europe and the United States, coupled with the consolidation of activities in Brazil for the first time.

As regards co-products, sugar trading started with our entry into Brazil and has become our third source of revenue, enabling us to further diversify our revenue.

Ethanol sales volume enjoyed significant year-on-year growth in comparison to 2007, both in Europe, the United States and Brazil. The increase reported for the United States is due to the start-up of the plant in Ravenna.

Nebraska, which has been operating all year long, whereas in the EU the increase can be put down to the start-up of the plant in Lacq, France.

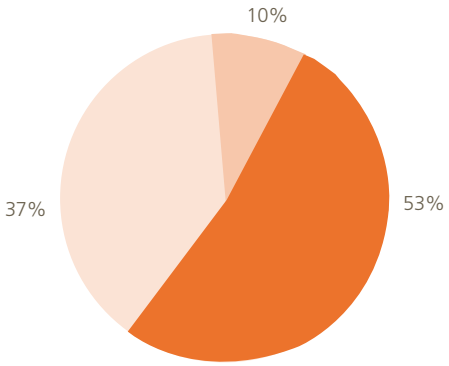
The company's commitment to investing in new productive assets remained unchanged in order to meet the upcoming expansion plan, both in the European Union, the United States and Brazil, thereby confirming Abengoa's unwavering commitment within the biofuel sector.

Over 2008, Abengoa Bioenergy remained heavily involved in R&D&i, as evidenced by its numerous investments over the year and the various agreements reached with groundbreaking companies in countries such as the U.S..

Our activities

The various business lines of Abengoa Bioenergy have traditionally been developed in Spain, Europe, and the U.S.. Following the acquisition of the Brazilian company, Dedini Agro, Abengoa Bioenergy gained a strategic position in the world's main bioethanol production and consumption market for transportation, thereby becoming the only production company in the world to be firmly established within all three major bioethanol global markets. Further opportunities on other geographies are also being analyzed.

Bioethanol Production 2008 - Geographic Distribution



United States | Brazil | Europe

Operative Results 2008

	Europe	United States	Brazil	Total
Bioethanol (Mgal)	111	163	31	305
DGS (t)	290,747	470,179	-	760,926
Exported Electricity (MWh)	335,724	-	-	335,724
Sugar (t)	-	-	452,468	452,468

Main milestones

The bioethanol industry experienced unprecedented global growth in 2008. Likewise, Abengoa Bioenergy continued to implement its strategy for growth in Europe, the United States, and Brazil.

Europe

The chief milestones reached in 2008 for European operations were the following:

- Bioethanol production in Babilafuente, Salamanca, resumed in July 2008.
- Agility and versatility in raw material cereal grain exchange in the plants. The company was able to adapt to prevailing market conditions at all times, having used barley, wheat, corn, and sorghum during the same year, and to make the changeover in as short as time as possible.
- Consolidation of operations at Abengoa Bioenergy France.
- Bioethanol from cereal production started in Lacq in August 2008.
- 127 Mgal construction project progress on schedule in the Europoort, Rotterdam (the Netherlands).
- Rotterdam construction site Ground Turning Ceremony held on February 13th, 2008.
- Operational start-up of the San Roque biodiesel plant in Cádiz.
- 894,000 t of cereal (sorghum, corn, wheat, and barley) and 18,200 t of vegetable oils purchased for the European plants.
- 320,000 t of DGS marketed, 95,000 t of which come from a new product, sorghum-based DGS.

- 138 Mgal of bioethanol distributed in European markets.
- Bioethanol exports pool consolidation, managing a total volume of 66 Mgal.
- 30 Mgal of third-party bioethanol originated.
- Spanish e85 market consolidated with 132,000 gal produced and marketed in over 15 service stations.
- e85 supply in public service station networks in Germany started, with agreements signed to distribute 265,000 gal in 20 service stations.

The United States

In 2008, the company reached the following milestones in the U.S. market:

- Successful completion of the first year of operation for the bioethanol production plant in Ravenna, Nebraska
  - the company's largest plant to date, with 88 Mgal of installed production capacity and performance outstripping design specifications.
- On-schedule progress in the construction of two plants similar to the one in Ravenna, in the States of Indiana and Illinois.
- Awarded $4 M from the State of Illinois to assist with the construction of the new Illinois production facility using local labor.
- Installation of new equipment in the two facilities located in York and Ravenna, Nebraska, to extract corn oil, which is now marketed as a new product to supplement revenue from these facilities.
- Recognition by the St. Louis Regional Chamber of Commerce as a "Greater St. Louis Top 50" company, which has had a significant economic and social impact on the region in ways that have positively affected the future of the business community.
- Relocation of corporate offices in St. Louis to a new building, almost doubling total work area to 3,450 m^2, providing a better working environment for employees through an open floor plan with natural lighting and improved safety and security and energy efficiency, while still reusing 95% of the private office and conference room furnishings to minimize the environmental impact.
- Commodities:
  - Grain originated: 59 MBsh
  - Ethanol production: 163 Mgal
  - Natural Gas procured: 5.2 MBTU
  - DGS produced: 470,000 t
- Successfully managed the commodity risk for ABUS facilities through historic price volatility.
- After benchmarking for ethanol price received and corn price paid, rated highest performer in managing risk and margin management.
- Successfully managed logistics for all customers, with zero complaints received.
- Successfully developed and implemented RIN tracking and assignment program for ABUS facilities.
- Implemented corn oil marketing for ABUS facilities.
- Supported Abengoa Sustainability Initiative, created GHG emission work plan.

Continued to advance the Biomass Supply division for the purpose of developing and commercializing the procurement, supply, storage and transport of biomass for ethanol production.

Brazil

2008 saw the company consolidate its position in the Brazilian market. Abengoa Bioenergy Trading Brazil, the new Abengoa Bioenergy Brazil subsidiary, was created with the main objective of commercializing bioethanol and its co-products in this country. Chief milestones are the following:

- Electricity sales contract to the Brazilian government of 70,080 MWh/year, for 15 years starting in 2010.
- Construction of the electric energy cogeneration project started in Abengoa Bioenergy São Luiz and Abengoa Bioenergy São João.
- Standardization of farmer and landowner contracts for raw material supply.
- The company's financial structure was streamlined, having restructured external debt and provided necessary funds.
- Final retail distribution network start-up for 3 service stations - sales capacity:
  - over 1 Mgal of hydrated bioethanol
  - 132,000 Gal of gasoline
  - over 1.3 Mgal of biodiesel-diesel oil blend (2%) per year
- Operations agreements to reach up to 750 service stations.

Production in Europe

Abengoa Bioenergy is the European leader in the production of bioethanol as a biofuel, and it currently operates three plants in Spain: Ecocarburantes Españoles, in Cartagena (Murcia); Bioetanol Galicia, in Teixeiro (La Coruña); and Biocarburantes Castilla y León in Babilafuente (Salamanca), with a total installed capacity of 40, 52 and 53 Mgal a year, respectively.

In addition, Abengoa Bioenergy, through Abengoa Bioenergy France, has consolidated operations in its fourth plant in Europe, with a production capacity of 66 Mgal a year, using corn and low-quality alcohols of vegetable origin as raw materials.

Construction on the Rotterdam plant, with a projected production capacity of 127 Mgal per year, has progressed substantially and the plant is expected to start operations on schedule by late 2009.

Main milestones

In Europe, the main milestones reached in 2008 through operations came in many shapes and forms, ranging from the enlargement of existing facilities to the launch of new projects, including the critical issue of adapting to changing conditions within the cereal market, swapping raw materials successfully and consolidating operations for the cereals plant in France.

One of the company's goals is to become a world leader in ethanol technology and production capacity in order to deliver a sustainable energy alternative to the transport sector. Through its activities, Abengoa Bioenergy not only enhances the energy sector, but also aims to improve the environment and help create new opportunities for sustainable rural development by promoting energy crops and creating farming industries, in turn helping to maintain employment and income levels in rural areas.

Industry

Thanks to the experience gained in the trading business, last year saw Abengoa Bioenergía roll out numerous domestic and international marketing initiatives to strengthen its position as one of Europe's main bioethanol managers and suppliers. The company managed to successfully distribute over 138 Mgal in 2008.

Most of the bioethanol is produced in four plants in Spain and France, but over 13 Mgal are also obtained from third-party suppliers, which increases supply capacity and enables the company to control European operations, thereby sending a clear message of the company's potential to the international market.

In addition to bioethanol marketing, work was conducted over 2008 to develop an e85 supply network (85% bioethanol, 15% gasoline) in Europe, mainly in Spain and the Netherlands. This network is key to expanding bioethanol and, although it is still in its initial stages, it promises to become a de facto reality over the next few years, which will provide consumers with biofuels throughout all Spain and Europe.

Legislation

For the second time in just five years, the European Union has approved innovative laws on transport fuels that will drive historic expansion in biofuels while providing the legal framework for this expansion to take place.

In 2003, Europe adopted for the first time an integrated package of legislation that encouraged the substitution of gasoline and diesel. A guideline biofuels target of 5.75% of the transport fuel market was set for 2010 and, as an incentive, the decision was made to make biofuels exempt from fuel taxes.

These measures were crucially sufficient to encourage the introduction of biofuels into most national markets. Indeed, a few Member States such as Spain have undertaken to achieve higher consumption levels than the European target. Nevertheless, these measures generally failed to provide the expansion in renewable energy that European policymakers had hoped for. At the end of 2008, the European Union approved two new laws that will both consolidate and further stimulate biofuels for the decade to come.

The Directive on renewable energy sources requires that by the year 2020 at least 10% of transport fuel in all countries of the European Union comes from renewable energy, equivalent to 30-35 Mt of oil (or 50 Mt of ethanol) every year. Unlike the previous legislation, this is an obligatory minimum target, backed up by a requirement to meet national guideline targets, which will progressively increase consumption from current levels to at least the 10% level. The legislation provides a special incentive for lignocellulosic biofuel, by allowing the consumption of every liter to count for double in meeting the target.

Further incentives to consume biofuels in this new package of laws include a 6% reduction in the greenhouse gas emissions from gasoline and diesel life cycles between 2011 and 2020. Also by the year 2020, 20% of all energy consumed in the European Union has to be from renewable sources. This colossal demand for green energy will, of course, also be supplied by renewable sources of electricity, heating and cooling. It is hoped that biofuel demand will be significantly higher than the minimum 10% for transport fuels.

In order to meet this required expansion in demand, the Directive on fuel quality was updated so that by the end of 2010, the 5% maximum limit on ethanol in gasoline will be doubled to 10% throughout Europe. Also in the legislation, a special dispensation has been granted by Europe's lawmakers taking into account the volatility of gasoline when it includes small blends of ethanol. This dispensation will significantly lower the costs of adding ethanol to gasoline without affecting vehicle performance or safety in any way. Work is now underway at the European Standards Institute to upgrade the European ethanol and gasoline standards to meet these changes.

Another feature of the new legislation is that beginning in 2010, a system of certification will come into operation that will guarantee the sustainability of biofuels sold within the European market. These certificates will incorporate a raft of strict social and environmental criteria that biofuels must adhere to, including a minimum 35% reduction in greenhouse gases compared to the average emissions from gasoline and diesel. Abengoa Bioenergy has been preparing itself assiduously to ensure that it is ready to comply with the sustainability certificates as soon as they are rolled out.

In combination, these two Directives secure the future of existing biofuel production facilities and those under construction in Europe. At the same time, they pave the way for long-term growth within the biofuel industry with existing commercial technology, while providing special incentives and encouraging the development of the next generation of energy from lignocellulose. In short, they provide the market platform and vision for the decade to come that the industry has been seeking.

Internal

At the Bioetanol Galicia facilities in La Coruña, Spain, existing installed production capacity was successfully expanded by a further 16%, bringing final capacity to 52 Mgal of bioethanol per year.

2008 saw a rise in the price of cereals, mainly wheat and barley, our main raw materials in Europe, and all operations were affected, With the ever-present purpose of improving operations within a framework of sustainability, Abengoa Bioenergy worked to develop the technologies needed to swap raw materials at two of its plants in Spain: in La Coruña and Cartagena. The changeover was successfully completed and both plants are already operating with sorghum instead of their original wheat, barley and corn.

In May, the VII World Biofuels 2008 world conference was held in Seville, Spain, for three days. It was attended by over 150 representatives of biofuel producing companies, raw material manufacturers, oil operators, R&D&i public and private institutions, and environmental protection organizations.

The start-up of the Lacq plant in France proved to be of enormous importance for Abengoa Bioenergy as it reinforces the company's leading position in Europe's bioethanol market, increasing total production capacity by 45% to bring the total to 210 Mgal per year.

The company's European activities will increase significantly with the new project started in 2007. The construction of a bioethanol plant in the Europoort, in Rotterdam (The Netherlands), with a final installed production capacity of 127 Mgal of bioethanol a year. Together with the plant in France and the three currently operating in Spain, this new addition will further consolidate Abengoa Bioenergy's position of leadership as Europe's foremost bioethanol producer and one of the largest in the world.

Biofuel information campaign

In the months of May, June and December, Abengoa Bioenergy conducted a press campaign targeting general-interest and economic newspapers, including their on-line editions, throughout the major European Member States.

The alleged impact of the use of green fuels on the soaring price of basic raw materials, and, therefore, food; the hypothetical increase in greenhouse gas emissions compared to fossil fuels; the deforestation of tropical rainforests; and their involvement in the loss of biodiversity, are some of the fallacious arguments that have been used to attack bioethanol and, as an extension, bioethanol producing companies.

The information campaign aims primarily to counteract the numerous misconceptions regarding bioethanol and the associated industry that have been brought to the public's attention, and to refute them with documented

evidence. Abengoa has used the campaign to unravel the numerous twisted arguments that have been put forward over the year with verifiable data and facts.

Production Plants

Ecocarburantes Españoles - San Roque, Cádiz, Spain

- Owned by Abengoa Bioenergy (over 95%) and IDAE (slightly under 5%).
- Installed capacity of 40 Mgal bioethanol per year.
- DGS production capacity of 110,000 t per year.
- Electrical power production capacity of 135,000 MWh per year.
- Cereal consumption capacity of 300,000 t per year.

Ecocarburantes Españoles, S.A. is the proprietary company of the bioethanol production plant in Valle de Escombreras, in Cartagena, Spain. Abengoa Bioenergía, S.A. owns slightly more than 95% of the company, with the Spanish Institute for Energy Diversification and Savings (IDAE) owning slightly less than 5%.

Part of the CO_2 produced during the cereal-to-ethanol transformation process is sold to third-party installations close to the plant, thereby eliminating the need for these companies to produce their own additional CO_2 and, therefore, taking even greater advantage of the bioethanol production process and reducing carbon dioxide emissions into the atmosphere.

Similarly, electricity is generated during the production process, which provides power for the entire plant, with the surplus being returned to the national power grid.

Bioetanol Galicia - Texeiro, La Coruña, Spain

- Owned by Abengoa Bioenergy (90%) and Xes Galicia (10%).
- Installed capacity of 52 Mgal of bioethanol per year.
- DGS production capacity of 120,000 t per year.
- Electrical power production capacity of 165,000 MWh per year.
- Cereal consumption of 340,000 t per year.

- The plant, which is owned by Bioetanol Galicia, S.A., is currently in operation in Teixeiro (La Coruña) and boasts a yearly bioethanol production capacity of 52 Mgal. The company is 90% owned by Abengoa Bioenergía and 10% by Xes Galicia.

The surplus electricity generated during bioethanol production, which greatly exceeds actual plant consumption, is returned to the national power grid, thereby generating some of the profits from the process.

Biocarburantes de Castilla y León - Babilafuente, Salamanca, Spain

- Owned by Abengoa Bioenergy (50%) and Ebro Puleva (50%).
- Installed capacity of 53 Mgal of bioethanol per year.
- DGS production capacity of 120,000 t per year.
- Electrical power production capacity of 139,000 MWh per year.
- Cereal consumption of 585,000 t per year.

The plant, which is owned by Biocarburantes de Castilla y León, S.A. in Babilafuente (Salamanca), has an annual production capacity of 53 Mgal, 1.3 Mgal of which will be obtained from converting cereal biomass into bioethanol by means of a new technology that is currently being developed by Abengoa Bioenergy New Technologies.

The plant will be the first in Europe with this capacity for bioethanol production from biomass, specifically from cereal straw employing enzymatic hydrolysis technology.

The company Biocarburantes de Castilla y León is 50% owned by Abengoa Bioenergía, S.A. and Ebro Puleva, the largest Spanish foodstuffs group.

As with the other Spanish plants, plant-generated electricity that is not employed in bioethanol production is sent to the national power grid.

Abengoa Bioenergy France - Lacq, Pau, France

- Owned by Abengoa Bioenergy (64%) and Oceol (36%).
- Final installed capacity of 66 Mgal of bioethanol per year.
- Annual DGS production of approximately 145,000 t.
- Cereal (corn) consumption estimated at around 500,000 t per year.
- Annual wine and sundry alcohol consumption estimated at around 13 Mgal.

Abengoa Bioenergy France is the company that owns the fourth Abengoa Bioenergy plant in Europe (the first outside Spain) for ethanol production. It is 64% owned by Abengoa Bioenergy and 36% by Oceol, an association of the region's main agricultural cooperatives and industries.

This plant employs corn and low-quality vegetable alcohols as raw materials and is located on the Petrochemical Platform at Lacq, Pyrénées-Atlantiques (France). The projected total annual production capacity is 66 Mgal of bioethanol, broken down into 53 Mgal using corn as the raw material, and 13 Mgal coming from the distillation of low-quality vegetable alcohols.

New Projects

Abengoa Bioenergy Netherlands - Europoort, Rotterdam, the Netherlands

- 100% owned by Abengoa Bioenergy.
- Projected annual bioethanol production capacity of 127 Mgal.
- Projected annual DGS production capacity of 380,000 t.
- Annual cereal consumption capacity of 1.2 Mt.

Abengoa Bioenergy Netherlands started the first construction phases for the plant, located in the Europoort, Rotterdam, in September 2007. The 127-Mgal capacity plant will begin operations during the last quarter of 2009. Abener, a subsidiary of Abengoa and which has constructed other bioethanol plants, is carrying out the construction work. The Dutch plant will directly employ 75 professionals.

Bioener Energía - Zierbana, Vizcaya Spain

- 50% owned by Abengoa Bioenergy and 50% by EVE (Basque Energy Agency).
- Planned annual bioethanol production capacity of 53 Mgal.
- Planned annual DGS production capacity of 176,000 t.
- Annual cereal consumption capacity of 527,000 t.

Bioener Energía, S.A. is located in Zierbana, Bilbao (Spain). The company is 50% owned by Abengoa Bioenergy and 50% by EVE (Basque Energy Agency). The plant has obtained the required environmental permits and construction will begin when a binding biofuels framework is implemented in Spain. The plant will hire approximately 65 highly qualified professionals. The plant includes a 40.4-MW cogeneration cycle.

Biodiesel

Biodiesel is a renewable and biodegradable biofuel obtained through the reaction of a light alcohol (ethanol or methanol) with any type of animal or vegetable oil or fat. The resulting chemical reaction is known as transesterification and produces biodiesel or Fatty Acid Methyl Ester (FAME) and glycerin.

Biodiesel does not contain any sulfur and, compared to diesel obtained from oil, reduces the emission of greenhouse gases (CO_2, among others), carbon monoxide (CO), particles (PM) and other contaminating agents.

Moreover, it is highly suitable for use as a fuel and can completely or partially replace diesel engine fuels, without any need for special conversions, adjustments or regulations to the vehicle engine. It similarly increases the engine lubricity and flash point, thus reducing the danger of explosion due to gas emanation.

The company's chosen conversion technology for the San Roque plant belongs to Desmet-Ballestra, the leading company in the vegetable oil processing and biodiesel production sector. This technology uses crude vegetable oils for biodiesel production and its main competitive edge, when compared to other technologies, is flexibility in plant design for processing any type of vegetable oil. The vegetable oils to be used are mainly soya, rape and palm, or fractions thereof.

Abengoa Bioenergía San Roque - San Roque, Cádiz, Spain

- 100% owned by Abengoa Bioenergy.
- Annual biodiesel production capacity of 60 Mgal.
- Annual pure glycerin production capacity of 22,000 t.
- Estimated annual vegetable oil consumption capacity of 205,000 t.

The Abengoa Bioenergía San Roque plant is located on a site annexed to the Gibraltar Refinery on the Palmones de San Roque industrial estate (Cádiz, Spain).

The biodiesel produced at the plant will be used in 5% mixtures with diesel at the Cepsa refinery.

Production in the United States

Abengoa Bioenergy is one of the largest bioethanol producers in the United States. After starting production at the Ravenna plant in Nebraska back in 2007, the company currently has an installed annual production capacity of approximately 200 Mgal at four plants in Nebraska, Kansas and New Mexico. Having marketed over 163 Mgal of ethanol, and close to 470,000 t of DGS during 2008. Abengoa Bioenergy is similarly one of the largest traders in ethanol and DGS from grain. Moreover, it has a customer network that includes Shell, Exxon-Mobil, Total, Valero and BP. Most of the ethanol is marketed in the form of e10, and after new commercial relationships established during the year, sales on the e85 market have been significantly increased. With the two new facilities under construction in Indiana and Illinois, total annual production capacity should increase by the end of 2009 to almost 400 Mgal.

Abengoa Bioenergy continues to operate the 3 existing plants in Colwich, Kansas, Portales, New Mexico and York, Nebraska. However, different companies have been constituted for the new projects, including the new plants in Indiana and Illinois, the now operational plant in Ravenna, Nebraska and the future biomass commercial plant in Hugoton, Kansas. Similarly, separate companies have been created for marketing, engineering and construction activities.

The company has continued to strengthen its management team with key contracting and improvements in compensative policies and prioritization in the competence program for all employees, which began in 2004. The focus on employee communication and development has helped to retain valued employees during the recent period of rapid growth in the industry. The new competence system and employee development programs (including various agreements with universities in the region) have been successful in attracting new talent to spur on further growth.

Industry and market

The U.S. ethanol industry continued its rapid expansion during 2008 with the completion of several new plants previously under construction in 2007. At least 35 new plants representing approximately 2.5 Bgal per year of capacity completed construction and began production operations in the first half of 2008. Operating plants now total approximately 180 in number with installed capacity of approximately 11 Bgal. This dramatic growth helped to fuel some market volatility as demand struggled to keep pace with supply. Due to difficult market conditions arising from this rapid industry expansion, all operations at existing facilities have been focused on maximizing ethanol yields, rather than on total production gallons, and new opportunities have been taken to improve and maintain the existing facilities for maximum efficiency.

Legislation

During 2008, the Environmental Protection Agency (EPA) delayed the publication of its first draft of proposed regulations for the implementation of the Energy Independence and Security Act of 2007, which was signed into law by President Bush on December 19th, 2007. After public comment, final regulations are expected to be published in mid-2009. This legislation provided for dramatic increases in vehicle fuel economy standards and in the usage of renewable fuels from both traditional grain starch feed stocks, and from advanced feed stocks such as cellulose.

In passing this legislation, the United States Congress significantly increased the requirement for usage of renewable fuels within the United States compared to the prior legislation adopted just two years earlier in 2005. The 2007 law increased the Renewable Fuel Standard (RFS) for 2009 from the 6.1 Bgal required under the existing RFS to 11.1 Bgal, including 10.5 Bgal of Conventional Biofuels such as corn-based ethanol, and 600 Mgal of Advanced Biofuels, of which 100 Mgal could be ethanol produced from grains other than corn, provided the production process achieves a 50% life cycle greenhouse gas (GHG) reduction compared to oil. It also increased total program requirements from 7.5 Bgal annually to 36 Bgal by 2022. Importantly, nearly two-thirds (21 Bgal) of this 36 Bgal total will come from advanced biofuels such as cellulosic ethanol.

The U.S. Congress gave further support to biofuels with the passing of a new Farm Bill in June of 2008. This new law contains both an Energy and a Tax Title, both of which will strengthen and advance the development of new biofuels technologies, particularly technologies to produce ethanol from cellulose. The Tax Title of this law provides special tax incentives for the production of cellulosic ethanol, and the Energy Title provides specific grants, loans and loan guarantees designed to promote the research and development, implementation and commercialization of cellulosic ethanol, as well as the feedstock supplies and logistics systems that will be required to make commercial production of cellulosic ethanol a reality.

These laws provide excellent legislative support for efforts to make America more energy-independent and more greenhouse gas-friendly, and they are extremely supportive of Abengoa Bioenergy's long-stated goal of making commercial-scale cellulosic ethanol production a reality.

State legislation also continues to favor renewable fuels. Refiners continue to move away from the use of MTBE on a nationwide basis, primarily replacing MTBE volumes with ethanol, and many states have passed their own legislation requiring or incentivizing the increased use of renewable fuels. At the end of 2007, legislation in individual states provided the following support for the ethanol industry:

- 25 states have passed bans or restrictions on the use of MTBE.
- 10 states have adopted state RFS usage requirements or low carbon fuel standards.
- 12 states incentivize the use of ethanol blends and e85.
- 15 states have ethanol production incentive programs.
- 37 states have passed laws eliminating negative pump-labeling requirements for ethanol blends.

Milestones

As in Europe, great efforts have been made in the United States to expand activities throughout the mid-western states (Kansas, Illinois, Indiana and Nebraska), and to strengthen and enhance process quality at the four existing plants. Moreover, Abengoa Bioenergy has developed tasks aimed at improving the training and qualification of its employees at all organizational levels.

Abengoa Bioenergy of Nebraska has completed more than a full year of operations at the new plant in Ravenna, Nebraska, which is the company's largest bioethanol plant to date, with an installed annual production capacity of 88 Mgal, employing corn as the main raw material. This plant is designed to recycle all process water, which is then treated and ready for reuse. This translates into lower water consumption, minimum contamination and hence, minimum environmental impact.

This year significant progress has been made on the construction of two new plants similar in design to the Ravenna, Nebraska facility, with each of these plants providing an additional 88 Mgal of annual bioethanol production. These plants are located in Illinois and Indiana and will strengthen Abengoa Bioenergy's position in the United States bioethanol market, establishing it as one of this country's leading producers. In September of this year, the Governor of the State of Illinois and other state and local officials visited the plant site for the Illinois facility and announced that the project would be the recipient of a $4 M grant through the state's Renewable Fuels Development Program. This program was developed to support the construction of new biofuel production facilities within the state using local labor.

Additionally, the company has also carried out continuous improvements and developments at its existing installations. In the case of the York plant in Nebraska, a cellulose biomass pilot plant was inaugurated in October, 2007, thus obtaining cellulose bioethanol for the first time at this location in order to eliminate the use of cereal as a raw material. This is one of Abengoa Bioenergy's main, medium to long-term goals and challenges, and will make the bioethanol industry one of the most environmentally-friendly and in favor of sustainable development. Additionally, equipment has been added to both Nebraska plants to extract corn oil, which can then be marketed as an additional product, providing substantial additional revenues without reducing the production of either ethanol, or DGS feed products.

As in previous years, Abengoa Bioenergy continued in 2008 to develop its strategy of encouraging human potential, which is the critical pillar underpinning its activities. The company has collaborated and participated

with universities in the region to develop plans for studies and practical work placements, aimed at the ethanol industry and the renewable energy world. Also, in-house programs of competence, development and compensation have been developed on all organizational levels to enhance basic knowledge and performance and ensure the professional advancement of its employees.

Production plants

Abengoa Bioenergy Corporation - Colwich, Kansas, U.S.A.

- 100% owned by Abengoa Bioenergy Corporation.
- Installed annual bioethanol production capacity of 25 Mgal.
- Installed annual DGS production capacity of 78,500 t.
- Combined annual consumption capacity of corn and sorghum of 9.5 Mbsh.

The CO_2 produced is captured and refined by an on-site customer. The produced DGS is not dried in the process; 100% of the co-product is sold in its natural state. Corn and sorghum can be employed simultaneously, although the primary raw material is sorghum, and more than 50% of the plant's energy requirements are provided by methane from a municipal solid waste landfill. It currently employs 48 highly qualified professionals.

Abengoa Bioenergy Corporation - Portales, New Mexico, USA

- 100% owned by Abengoa Bioenergy Corporation.
- Installed annual bioethanol production capacity of 30 Mgal.
- Installed annual DGS production capacity of 83,500 t.
- Annual sorghum consumption capacity of 10 Mbsh.

The produced DGS is not dried in the process, but rather sold 100% in its natural state. Corn and sorghum can be employed simultaneously, although the primary raw material is sorghum. Annual bioethanol production capacity stands at 30 Mgal and the plant currently employs 48 highly qualified professionals.

Abengoa Bioenergy Corporation - York, Nebraska, U.S.A.

- 100% owned by Abengoa Bioenergy Corporation.
- Installed annual bioethanol production capacity of 56 Mgal.
- Installed annual DGS production capacity of 167,000 t.
- Corn consumption capacity of 20 Mbsh.

Over 50% of the produced CO_2 is captured and refined by an on-site customer. The facilities provide logistic services and support to the adjacent ABNT biomass pilot plant. The annual production capacity is 56 Mgal, using continuous batch cooking and fermentation processes. The plant currently employs 48 highly qualified professionals.

Abengoa Bioenergy of Nebraska - Ravenna, Nebraska, U.S.A.

- 100% owned by Abengoa Bioenergy.
- Installed annual bioethanol production capacity of 88 Mgal.
- Installed annual DGS production capacity of 240,000 t.
- Corn consumption capacity of 32 Mbsh.

With an annual installed bioethanol capacity of 88 Mgal, using continuous fermentation, this facility is

the largest owned by Abengoa Bioenergy in the U.S. to date, and the first to use continuous fermentation technology there. The project includes a double railway circuit for simultaneous loading and shipment of 2.6 Mgal of bioethanol in 95 railroad tanker cars. The plant employs 60 highly qualified employees.

This plant is designed to recycle all process water, which is then treated and ready for reuse, thus consuming less water, producing minimum pollution and hence, minimum ecologic impact.

New projects

Abengoa Bioenergy of Indiana - Mount Vernon, Indiana, U.S.A.

- Projected annual bioethanol production capacity of 88 Mgal.
- Projected annual DGS production capacity of 300,000 t.
- Annual corn consumption capacity of 32 Mbsh.

When operational, the plant will employ 63 people. It will have the capacity to dry all or part of its DGS production and will be located next to the Ohio River, which will provide access to practically all the eastern half of the U.S., together with the export markets of the entire globe.

Abengoa Bioenergy of Illinois - Granite City, Illinois, U.S.A.

- Projected annual bioethanol production capacity of 88 Mgal.
- Projected annual DGS production capacity of 300,000 t.
- Annual corn consumption capacity of 32 Mbsh.

When operational, the plant will employ 63 people. It will have the capacity to dry all or part of its DGS production and will be located next to the Mississippi River, which will provide access to practically all the eastern half of the U.S., together with the export markets of the entire globe.

Production in Brazil

Brazil is one of the biggest world markets for bioethanol, with an annual production volume of over 6 GG (2007-2008). It is expected that bioethanol consumption will continue to grow strongly because of the success of Flex-Fuel vehicles, which now represent 87.4% of vehicles sold in Brazil and which allow either gasoline or bioethanol to be employed.

Abengoa Bioenergy is the only company worldwide that operates in the three biggest world bioethanol markets: Brazil, Europe and the United States. Following this integration, it is expected to obtain significant production growth at the existing Brazilian plants, develop a new plant and internationally market its Brazilian production in a more effective fashion, thanks to its existing commercial network. Moreover, the company intends to adapt cellulose ethanol technology to sugarcane bagasse in order to increase medium-term production and cut costs efficiently.

Production Plants

Abengoa Bioenergia São Luiz - Pirassununga, São Paulo, Brasil

- 100% owned by Abengoa Bioenergy.
- Installed annual bioethanol production capacity of 21 Mgal.
- Annual sugar production of around 275,000 t.
- Annual sugarcane consumption capacity of 3.1 Mt.

Abengoa Bioenergia Brasil - São João de Boavista, Brasil

- 100% owned by Abengoa Bioenergy.
- Installed annual bioethanol production capacity of 15 Mgal.
- Annual sugar production of around 230,000 t.
- Annual sugarcane consumption capacity of 2.5 Mt.

Raw materials trade, logistics and origination

Abengoa Bioenergy provides solutions to its customers' bioethanol and grain marketing requirements. It uses its experience and alliances to maximize profit margins, minimizing operational risks through a combination of short- and long-term contracts and structures for estimating price differentials. Thanks to years of production experience, the company has gained detailed knowledge of bioethanol and the raw materials market and we have developed relationships with the major oil companies, and the major trade and raw-materials-logistics multinational companies.

Regarding raw materials, all necessary resources and contractual agreements with providers have been implemented in order to certify all the raw materials consumed by the company's plants, in accordance with the sustainability criteria prescribed by European Law and the strict requirements imposed by bioethanol customers.

In its aim of offering maximum quality and nutritional safety, the company's DGS experts provide assistance to the animal feed production market, for a greater optimization of DGS use in products intended for animal feed for cattle, pigs and poultry. Our respected logistics personnel assist in ensuring the products are transported as efficiently as possible and at the lowest possible cost.

Abengoa Bioenergy offers its clients industry summaries, detailing cereal, ethanol, and DGS market fluctuations, and market reports offering objective perspectives on future trends. The company places great emphasis on keeping its customers informed of the ethanol market. It constantly publishes market reports, logistic cost estimates and sales offers, in an attempt to increase transparency and enable customers to operate their plants in the most profitable manner.

Abengoa Bioenergy Trading Europe

Abengoa Bioenergy Trading Europe (ABTEU) is a subsidiary of Abengoa Bioenergy that provides added value to the company, optimizing efficiency by concentrating supplies, logistics and commercial effort, creating a unique brand name in the market.

Products and Services

Abengoa Bioenergy Trading provides the following services and activities:

- Joint promotion of bioethanol produced by various European manufacturers by means of the "pool" concept (total combined volume), which adds flexibility, security and potential to operations.
- Management of supply and cost assessment.
- Searches for sources of bioethanol and other alcohols to be processed at Abengoa Bioenergy's plants.
- Bioethanol management control and logistics coordination, including shipping, handling and storage.
- Assurance of supply contract fulfillment, optimizing bioethanol distribution and logistics.
- Customer after-sales services.

ABTEU offers producers the option of accessing global bioethanol markets by incorporating their production capacity into a combined pool that is traded with the main oil companies and with ETBE producers in Europe. The company has a logistics network in place to ensure supply requirements for commercial ethanol are met with maximum reliability and flexibility. Moreover, ABTEU provides the various parties with access to accumulated production, which guarantees flexibility, quality and reliability in bioethanol supplies.

Through national and international marketing activities in 2008, and based on experience acquired in this business. Abengoa Bioenergy has been able to establish itself as one of the main managers and providers of bioethanol throughout the European continent, It managed to satisfactorily distribute over 138 Mgal over 2008.

Of the total amount marketed and distributed by Abengoa Bioenergy during 2008, 30 Mgal were originated by third-party producers to complete Abengoa Bioenergy production, thereby improving the company's ability to respond to demand from its customers within Europe. This origination capability will be strengthened from 2008 onward due to the arrival of the newly constituted Abengoa Bioenergy Trading Company in Brazil, which will increase the company's direct supply capability, provide product control and optimize brand operations and competitiveness, while also enhancing our exposure on the international stage.

In addition to bioethanol marketing, 2008 also saw the company working to develop a European e85 (85% bioethanol and 15% gasoline) supply network, mainly in Spain, where it already has a 20-service-station network with annual sales of 119,000 gal of e85, and in Germany, where numerous other stations are supplied with a projected annual consumption of 265,000 gal. This network is key to bioethanol expansion and, although it is still in its infancy, will quickly become reality over the coming years, providing consumers with bioethanol throughout Spain and Europe.

Ecoagrícola

Products and services

Within the Bioenergy business unit, Ecoagrícola is the company responsible for the comprehensive management of buying the raw materials (cereals, oleaginous seeds, and vegetable oils) required for the Abengoa Bioenergy bioethanol and biodiesel plants, together with the marketing of associated co-products, namely DGS. It therefore receives the raw materials and markets the co-product.

Its activity is centered on plants owned by Abengoa Bioenergy (Ecocarburantes Españoles, Bioetanol Galicia, Biocarburantes Castilla y León, Abengoa Bioenergy France, Abengoa Bioenergía San Roque at present, but also the other European plants on the horizon).

The specific market difficulties in the 2007-2008 campaign, which have caused grain shortages throughout Europe, coupled with massive investments in global cereal markets, leading to tremendous volatility and a steep rise in prices, have caused modifications to the CAP (Common Agriculture Policy), meaning that farmers' obligation to set aside land has now been abolished. On the other hand, high cereal prices have meant that farmers are now less interested in the Energy Crops program incentives. Nevertheless, Ecoagricola has maintained its Energy Crops offer during the 2008 campaign. Participating farmers have obtained favorable results in comparison to current market prices.

2008 highlights

The figures given below reflect Ecoagrícola's leadership in the cereal market for energy use in EU bioethanol production.

- Ecoagrícola has been heading energy cereal contracting in Spain for biofuel production for many years now by signing direct contracts with farmers.
- Ecoagrícola's presence in Spain covers 41 Spanish provinces, in addition to the United Kingdom and Germany, all of which is coordinated by its own network of collaborators, with almost 200 agents.

Ecoagrícola possesses in-depth knowledge of the international raw materials markets, which allows it to anticipate the prices that farmers will receive if they use their crops for biofuels, thus guaranteeing the final price of their production and, hence, their future income, even before they sow a crop.

Ecoagrícola controls each and every operation required to complete the full process for the contracted commodities, ranging from cultivation to storage at plant warehouses, while providing all the necessary services: road and sea transportation, storage and quality assurance.

2008 main milestones

- 324,000 t of sorghum, 246,000 t of corn, 107,000 t of wheat, and 217,000 t of barley supplied to the European plants.
- 320,000 t of DGS marketed.
- 23 ML of wine alcohol managed.
- 18,200 t of vegetable oils supplied.
- 95% of raw material suppliers endorsed pursuant to company sustainability criteria.

Abengoa Bioenergy Trading US

Extreme volatility in commodity prices and the surge in U.S. ethanol production posed significant challenges to Abengoa Bioenergy Trading U.S. in 2008. Faced with record-high corn prices and slumping ethanol prices compared to gasoline, the spread was drastically reduced. The company acted prudently in hedging corn, ethanol and natural gas needs at opportune times, keeping ethanol marketing in highest margin timeslots for Abengoa Bioenergy's production companies. Abengoa Bioenergy Trading U.S. successfully managed commodity procurement, marketing, pricing and logistics through the most tumultuous commodity markets in US history. ABTUS commodity trading activities expanded to coincide with the opportunities presented by price volatility and by the knowledge gained in physical markets. These activities contributed substantial revenues to the company in the US over 2008.

Products and Services

Abengoa Bioenergy Trading US provides its customers with services that cover all the commercial aspects of ethanol, ranging from obtaining raw materials, signing agreements with farmers and cooperatives, to the sale of bioethanol and DGS on national and export markets:

- Ethanol Marketing.
- Logistics, including rail fleet leases and management.
- Grain procurement and back-office accounting.
- DGS and back-office accounting.
- Natural gas/landfill gas procurement and basis pricing.
- Denaturant procurement.
- Corn oil marketing.
- Hedging and risk management (for corn, ethanol, DGS, natural gas and denaturant), including drawing up and executing strategies that encompass exchange transactions and futures and options trading, OTC swaps and options, money market and marketing, basic targets for both corn and natural gas.
- Commodity pricing for ABUS facility budgets and forecasting.
- Assistance in developing marketing and logistics plans for Maple projects.

ABTUS also engaged in the following trading activities for its own account in 2008:

- Ethanol Buy-Sell transactions.
- Ethanol Logistical Swap transactions.
- DGS trading.