

Abengoa Case Study

Introduction

Abengoa is a leading contractor of global environmental infrastructure projects. Since 2001 the company has grown from a largely Spanish company with a modest presence overseas, to a truly global enterprise with more than 80% of its revenue coming from projects outside Spain. This growth has been built upon the implementation of an internationalization strategy that adopts different approaches for each of the new international markets that the company has entered, as well as a diversification strategy in which the company has established unique competitive positions in several related sectors, as described more fully below.

Competitive Landscape & Dynamic Strategy

Abengoa operates in the highly competitive global infrastructure sector. The company has created a valuable competitive position by aligning its people, processes and systems to its core mission, being the development and application of technology to address the challenges arising from sustainable development¹.

The company focuses upon five key sectors:

- Solar power – generating clean electricity from the sun;
- Cogeneration power – generating electricity from highly efficient gas cogeneration plant;
- Transmission – transporting electricity in long range transmission systems;
- Bioenergy – producing clean biofuels for the transportation sector; and
- Water – producing potable water from desalination technologies.

Crucially, each of these sectors is at a different stage in its competitive life cycle. As shown in Exhibit 1, the Transmission sector is in the mature phase of its competitive life cycle, with a group of consolidated businesses operating on a cost leadership model. The Cogeneration and Water sectors are in the growth phase with the dominant design established and competitors entering the market with a focus on process, business model and logistics. And the Bioenergy and Solar sectors are in the emergent phase where new technologies and companies are competing for dominance. As each of these sectors is at a different stage in their competitive life cycle, the company has applied an assortment of different strategies and tactics to compete in each of these sectors. In the solar and bioenergy sectors in the emergent phase, Abengoa is considered a leader in the development of technology and ongoing research and development around a variety of solar technologies and third-generation bioenergy technologies. While in the Transmission sector

in its mature phase, the company has become the world's leading contractor and utilizes its systems and processes to construct large transmission projects of +1000 km in a highly efficient and low cost manner.

Notwithstanding the differences between these sectors, Abengoa has managed to achieve a unique competitive position in each by exploiting certain core capabilities and values it has created in technology and innovation, high caliber engineering and project management resources and capabilities, its global procurement platform, and its strategic relationships with key suppliers. As of 2015, Abengoa had built over 2,700 MW of solar power plant, a further 10,000 MW of conventional cogeneration power plant, desalination plants producing over 1.5 million m³ of water per day and over 26,000 km of transmission linesⁱ. And Abengoa's leadership position is evidenced in its ranking in the Engineering News Review (ENR), the leading global review of EPC Contractors, where it is ranked #1 amongst global contractors in solar thermal power, conventional cogeneration power, and transmission and distributionⁱⁱⁱ.

Internationalization Strategy

In 2001, Abengoa was essentially a Spanish company with emerging operations in certain international markets. Its total revenue in 2001 was 1,379 million Euro of which over 63% was generated in Spain and only 36% was generated in international markets, primarily in Latin America^{iv}. By 2014, Abengoa had transformed itself in to a genuinely global enterprise, with activities in 57 countries and revenues of 7,150 million Euro, 80% of which was generated outside of Spain; indeed the US had become the company's largest single market and Spain's contribution to the company's revenue was just 12%^v (see Exhibit 2).

This impressive growth in international activities was achieved by adopting a combination of strategies, adapted to the specifics of each new market. As shown in Exhibit 3, in the US, which was to become Abengoa's single most important market, the company took the approach of defining this as one of its two domestic markets, along with Spain, and adopted a hybrid approach for market entry that encompassed both acquisitions and greenfield investment. It purchased several small US engineering companies which became the seed of the growing business and it invested heavily in attracting and retaining US staff in all aspects of its activities. In particular, business development and offer preparation was almost entirely led by US staff with experience and knowledge of the needs of local stakeholders. In Latin America, the company adopted a largely acquisition led approach to entering the new market, driven largely by the need to have an established local presence on the ground with a history of meeting the requirements of the market. While, in contrast, in the Middle East and Africa, where stakeholders placed more emphasis on expertise and reputation than on strict local presence, the company adopted an incremental greenfield approach bringing in experienced engineers and developers from overseas and growing those businesses organically in response to the growth in the market, without any large scale mergers, acquisitions or investments.

The fact that Abengoa recognized the need to adopt different entry strategies in the different international markets was critical to its success in expanding and diversifying the company's markets and revenues.

Diversification Strategy

Abengoa has adopted a broad diversification strategy across geographies and sectors. In doing so however, the company has always focused upon building a unique competitive advantage by leveraging its key strengths in technology development, high quality engineering and project management capabilities and strategic procurement platforms to maintain its competitive advantage and adapt as the individual sectors move up their respective industry S-curves. As can be seen in the Diversification Matrix in Exhibit 4, in the industry sectors in which Abengoa operates it is consistently able to compete on the basis of a relatively high competitive advantage for its respective business unit.

This geographical and sectoral diversification has proven extremely effective in diversifying risk and ensuring revenues continue to grow despite down-turns in certain geographies or sectors. For example, in the mid-2000s as crush spreads in the bioenergy sector were squeezed, significantly reducing the profitability of biofuels, the installation of solar power projects began doubling year-on-year and Abengoa's unique technologies and engineering capabilities in the solar sector allowed the company to weather the lower than forecast contributions of the bioenergy business to the group's overall performance. Likewise, from 2011, as the financial crisis deepened in Spain and government regulations reduced revenue streams from Spanish solar power projects, the company was able to deploy this same solar technology first in the United States, then in South Africa and finally in Chile, to more than offset the stagnation of revenues in its Spanish businesses. In addition, Abengoa was frequently able to convert its leading role in one geography into a leading position in a new emerging geography, or to re-allocate its strong engineering, project management and procurement capabilities from one sector to another. For example, the leading position Abengoa had attained in reverse osmosis desalination projects in Spain and Northern Africa, enabled the company to enter important international markets in India and China with the construction of the Chennai and Qingdao desalination plants in these respective countries. In a similar vein, the engineering and project management capabilities and resources Abengoa had developed in the US market were used to develop and execute important infrastructure projects in Chile and in Australia.

In each of these cases, and many more, the geographical and sectoral diversification strategies that Abengoa had pursued enabled the company to continue to meet market expectations and to grow its business.

Stakeholder Analysis

Given the size, complexity and importance of large environmental infrastructure projects, it is imperative to Abengoa's success that it clearly aligns its values, opportunities and capabilities in a way that creates value for a wide range of stakeholders. The Stakeholder Analysis in Exhibit 5 identifies the primary and secondary stakeholders, their priorities and how Abengoa's business is aligned to create value for these stakeholders. As can be seen in the matrix, Abengoa has had great success in aligning its business with the needs and priorities of customers, governments, communities, advocate groups and suppliers, groups that are fundamental to Abengoa's success. In these instances, the alignment of the company's people, processes and systems deliver competitive, performing environmental infrastructure projects that satisfy many of the values of these stakeholders, including the provision of affordable, clean water and electricity, quality projects completed on time and on-budget, opportunities for technology and skills transfer, opportunities for employment, increased levels of foreign direct investment and improved social and environmental conditions. However, from the analysis it is also possible to see that the company has been less successful in aligning its business to create values for shareholders, who have seen their investments deteriorate over the last two years as the company over-extended itself and corporate debt grew to unsustainable levels.

Synthesis

From the early 2000s Abengoa has implemented a very successful internationalization and diversification strategy. It has expanded its presence in key geographies outside of Spain and has created a valuable competitive position in several industry sectors, notably solar power, water desalination, bioenergy, cogeneration and transmission. In doing so the company has adapted its strategies to meet the needs of particular markets or to respond to the stage of the industry's competitive life cycle and its position on the S-curve. This internationalization and diversification has allowed the company to outperform competitors, navigate down-turns in specific markets or sectors and continue to grow its business. Notwithstanding this success however, it is evident from the stakeholder analysis that the business has not been focused on creating optimal value for certain important stakeholders, namely shareholders. This is a weakness that will need to be urgently addressed in the reorganization of the company.

Exhibit 1 – Competitive Life Cycle Analysis

Competitive Life Cycle of Abengoa’s Different Business Sectors

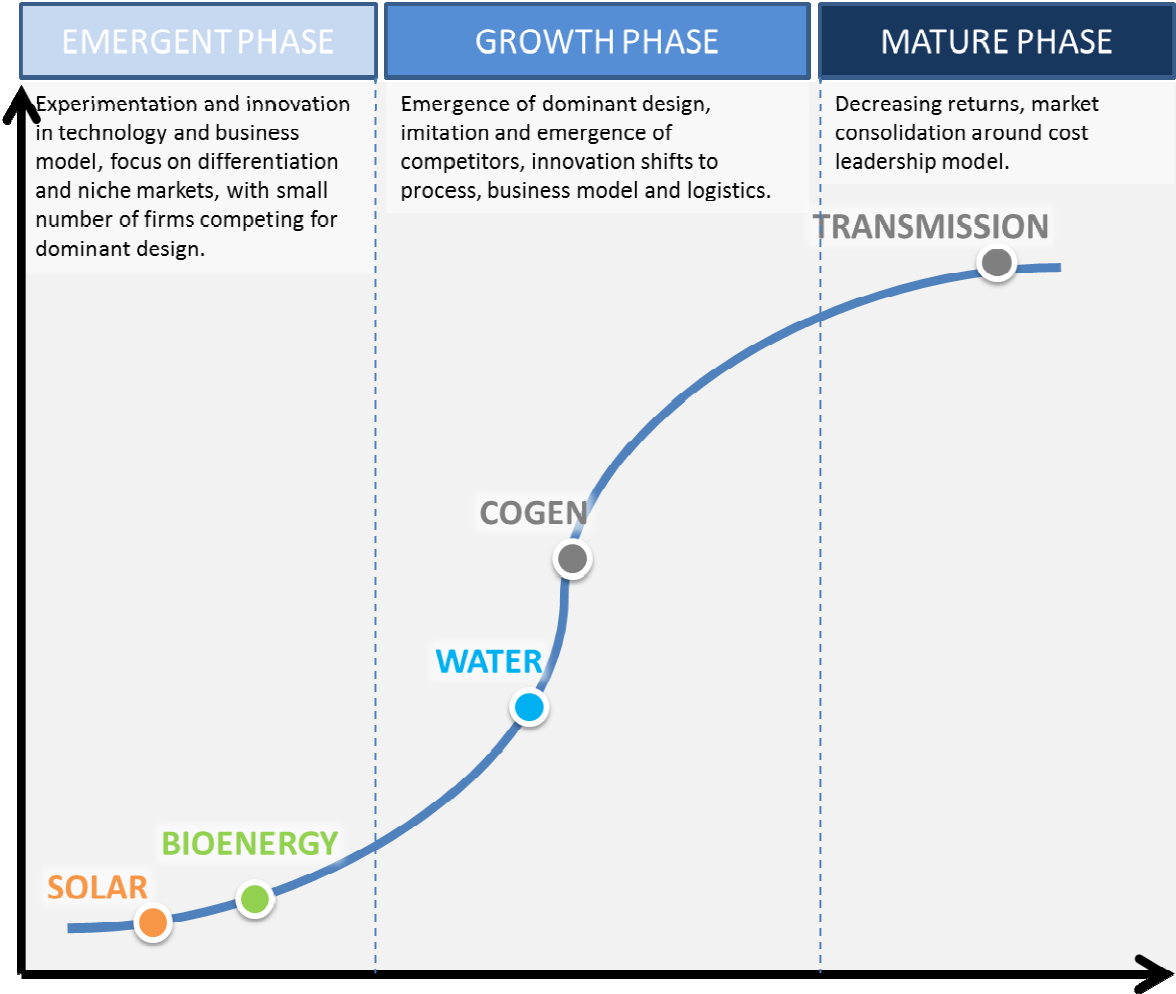


Exhibit 2 – Growth in International Business

Growth in Abengoa's International Business, 2001 to 2014

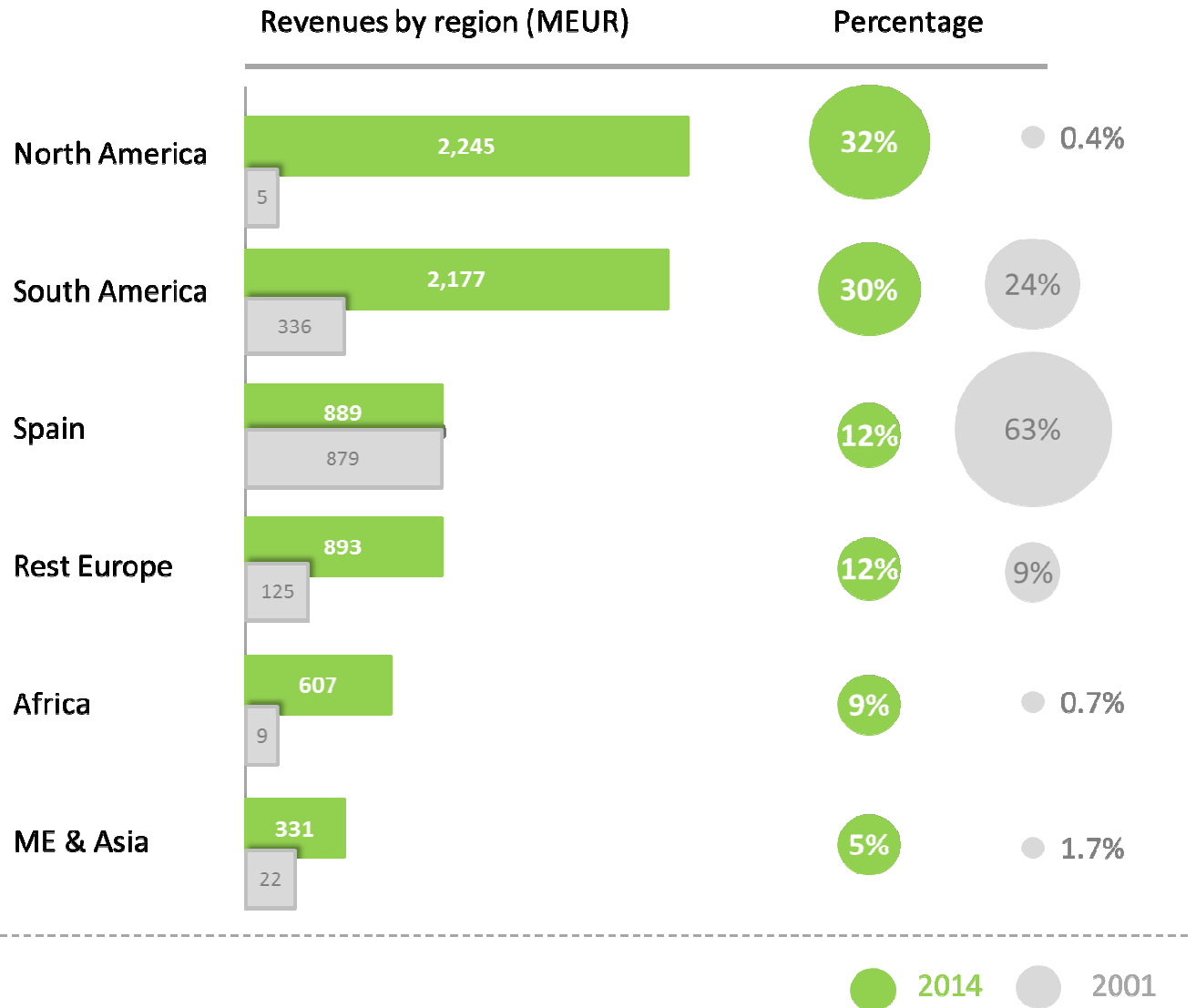


Exhibit 3 – Internationalization Strategy

Region	Needs	Market Entry Approach
North America	<p>Competitive US based pricing.</p> <p>Relationships with US subcontractors.</p> <p>Knowledge of US customer needs.</p> <p>Knowledge US standards and norms.</p> <p>Capability in environment, health, safety and quality activities.</p> <p>Large and diverse geographical needs across many States.</p>	<p>HYBRID</p> <p>Acquisition & Greenfield</p> <p>Acquiring several US engineering firms, hiring US management, maintaining high percentage US nationals in all aspects of the business, focus on US led engineering, developing and offer preparation departments.</p>
Latin America	<p>Competitive pricing.</p> <p>Relationships with LatAm subcontractors.</p> <p>Relationships with LatAm government.</p> <p>Diverse national markets.</p>	<p>ACQUISITION</p> <p>Acquisition of several Latin American businesses with operations throughout the continent permitted Abengoa to 'buy' ready-made local expertise and relationships with stakeholders, so critical to the success of developing business in South America.</p>
Rest of Europe (ex Spain)	<p>Common EU market.</p> <p>Network of EU suppliers.</p> <p>Common standards, lenders, investors and clients.</p>	<p>EXPORTING</p> <p>Entered broader EU market by 'exporting' skills and resources from Spain and only setting up standalone companies and presence as required to bid and execute projects.</p>
Middle East & Africa	<p>Competitive pricing.</p> <p>Priority attached to track record,</p>	<p>GREENFIELD</p> <p>Incremental greenfield investment</p>

	<p>expertise and reputation.</p> <p>Long tradition of foreign companies competing domestically.</p> <p>Need for technology transfer and job creation.</p> <p>Standards based upon mix of EU and US norms.</p>	<p>to match growth in market and occurrence of opportunities, supported by selective hiring of local managers on a project by project basis.</p>
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Exhibit 4 – Diversification Matrix

Diversification Matrix of Abengoa's Different Business Sectors

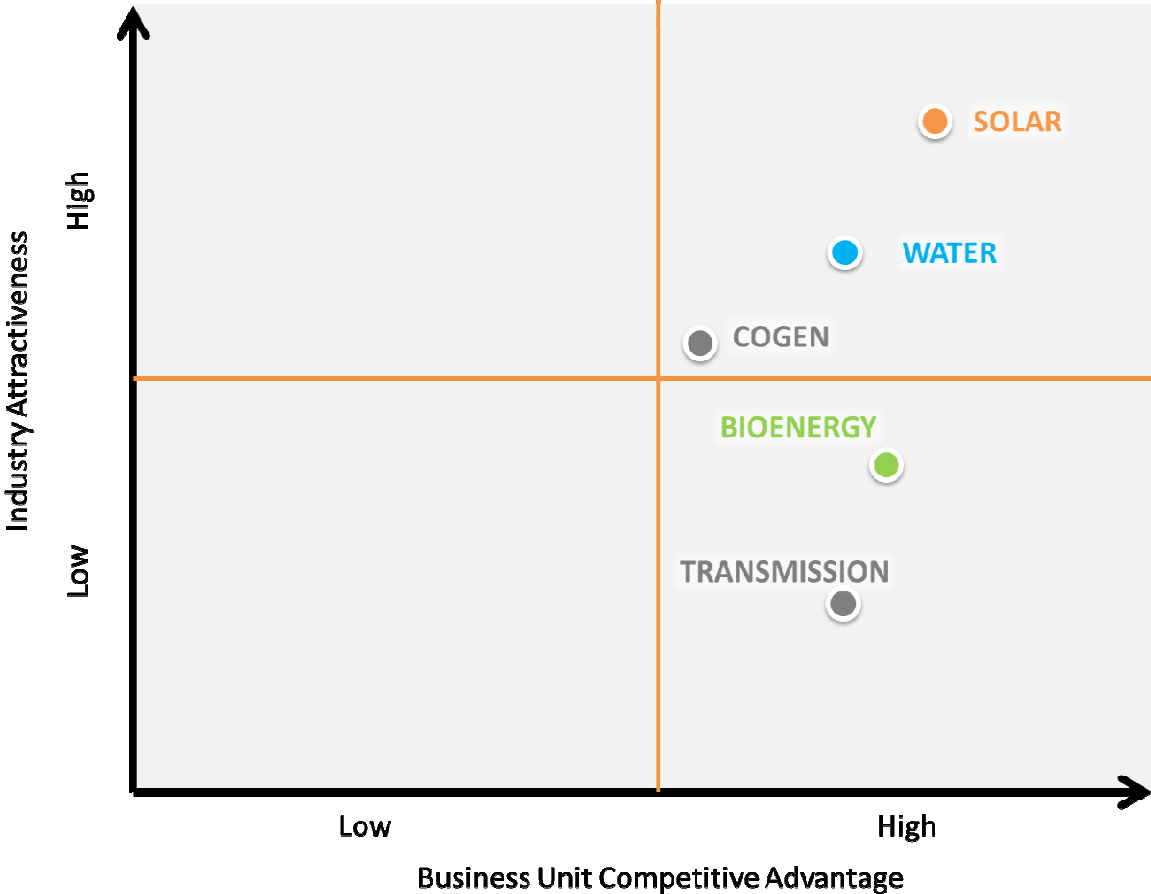


Exhibit 5 – Stakeholder Analysis

Stakeholders	Stakeholder Priorities / Values	Business Alignment
Primary		
Customers	<p>Competitive pricing.</p> <p>Completion on-time and on-budget.</p> <p>Quality works.</p> <p>High environmental, health and safety standards.</p>	<p>HIGH</p> <p>People, processes and systems are aligned to deliver competitive pricing, complete projects on time and to specification, while maintaining high environmental, health, safety and quality standards.</p>
Employees	<p>Competitive remuneration.</p> <p>Opportunity for advancement.</p> <p>Opportunity for professional growth.</p> <p>Safe and healthy working environment.</p> <p>Sense of contributing towards broader social and environmental goals.</p>	<p>MEDIUM</p> <p>Unique competitive position that Abengoa has established allows company to offer employees opportunities for promotion, to work on some of the most important infrastructure projects around the world and to grow with the business. The company's focus on building environmental infrastructure in emerging economies and regions also aligns with employees' needs for a sense of contribution to broader community goals. Notwithstanding the above, remuneration packages remain lower than industry norm and there are fewer training opportunities than competitors.</p>
Shareholders	<p>Risk adjusted return on equity.</p> <p>Opportunity to enter environmental infrastructure</p>	<p>LOW</p> <p>Abengoa's growth over last ten years has led to revenue growth but low relative return on equity and return</p>

	sector.	on assets. The over-extension of corporate debt has destroyed shareholder value leading to recapitalization and restructuring.
Suppliers	<p>Clearly defined and profitable supply contracts.</p> <p>Opportunity to enter new markets.</p> <p>Opportunity to achieve ongoing growth.</p> <p>Equitable payment terms.</p>	<p>MEDIUM</p> <p>Supplier procurement is a strategic competitive advantage for Abengoa and as such the company has maintained good relationships with supplies, including strategic alliances with many key suppliers. The growth of the company over the last ten years has created opportunities for suppliers to 'piggy-back' on this growth and enter new markets and grow their own business. Payment terms however, remain longer than the industry norm and this remains a source of contention particularly with smaller suppliers.</p>
Community	<p>Satisfying growing need for power and water.</p> <p>Opportunities for employment and local businesses.</p> <p>Technology and skills transfer to regions.</p> <p>Improved environmental performance and lower climate change impacts of conventional projects.</p>	<p>HIGH</p> <p>Abengoa's focus on environmental infrastructure means that at its core the company delivers clean electricity and water to regions around the world that are in need of these services. In doing so the business has created billions of Euros of foreign direct investment and created thousands of local jobs and contracted thousands of local businesses as suppliers. The execution of these infrastructure projects have had a positive impact on social and environmental factors and reduced greenhouse gas emissions that affect the climate.</p>
Secondary		

<p>Governments</p>	<p>New power and water infrastructure.</p> <p>Foreign direct investment.</p> <p>Employment opportunities.</p> <p>Compliance with environmental targets.</p>	<p>HIGH</p> <p>Abengoa delivers clean power and water to various governments around the world allowing those governments to meet the infrastructure needs of their citizens and to comply with environmental targets and regulations. In doing so the projects create significant amounts of foreign direct investment and opportunities for employment.</p>
<p>Advocate Groups</p>	<p>Improved environmental and social conditions.</p>	<p>HIGH</p> <p>Abengoa's activities create new infrastructure that significantly improves the quality of life and environmental conditions within a country or region.</p>

Exhibit 6 - References

ⁱ Abengoa Annual Report, Volume 1, 2014.

ⁱⁱ Abengoa, Business Plan and Financial Restructuring Proposal, March 2016.

ⁱⁱⁱ Abengoa ranked leader in transmission, solar energy, and cogeneration project development by Engineering News-Record, February 2016.

http://www.abengoa.es/web/en/noticias_y_publicaciones/noticias/historico/2016/02_febrero/abg_20160219.html

^{iv} Abengoa, Annual Report 2001.

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^v Abengoa, Annual Report, Volumes 2 & 3, 2014.

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