Abengoa
Who are we?

Abengoa (MCE: ABG.B) is an international company that applies innovative technology solutions for sustainable development in the infrastructure, energy and water sectors.

Constructing energy infrastructures
- Generating conventional and renewable energy.
- Transporting and distributing energy.

Providing solutions for the integrated water cycle
- Developing desalination and water treatment processes.
- Constructing hydraulic infrastructures.

Being a referent in the transmission and distribution sector
- Developing transmission lines, electric distribution and railway electrification projects.
- Constructing installations and infrastructures for all types of plants and buildings.

Obtaining results in the services area
- Providing operation and maintenance services for plants optimization.
- Managing private assets efficiently.

Furthering new horizons for development and innovation
- Our 342 accumulated awarded patents since 2008 position us as technological leaders in sectors such as solar thermal technology.
- Renewable energy storage and our bet for energy efficiency and water consumption (water-energy nexus).
A Viable **Company with Solid Fundamentals**

**Solid business** of engineering, procurement, construction and operation and maintenance in high growth markets

**Global footprint** makes Abengoa’s business more resilient and the size of its backlog and pipeline provides revenue visibility

**Credibility** regained with stakeholders

**Leaner organizational structure** and high operational efficiency

**The development** of commercially viable cutting-edge technology has become Abengoa’s key competitive advantage

**A more focused business model** and a healthier, sound capital structure, together with a multidisciplinary set of capabilities places Abengoa in a solid position for future value creation

**Formed by a team** of committed and skilled people that have specialized and competitive know-how
Main Magnitudes

Global presence with a recognized position of leadership in main world rankings (ENR, GWI).

9.3 GW of installed power in conventional generation plants, of which 1.4 are under construction.

2.1 GW* solar power constructed, 860 MW under construction, and 480 MW of wind power.

*34% of solar thermal installed capacity worldwide.

+ 27,000 km of transmission and distribution lines and more than 330 substations worldwide over the last 15 years.

+ 1.7 million of m³/day of desalinated installed capacity and 2 million m³/day under construction.

342 accumulated awarded patents since 2008.
# 2018 Results

## Main Indicators

<table>
<thead>
<tr>
<th>Abengoa Figures</th>
<th>2018</th>
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</thead>
<tbody>
<tr>
<td>Sales</td>
<td>1,303 M€</td>
</tr>
<tr>
<td>EBITDA</td>
<td>188 M€</td>
</tr>
<tr>
<td>Employees</td>
<td>13,450</td>
</tr>
</tbody>
</table>

## Revenues by Geography

- South America: 27%
- Middle East: 21%
- Africa: 15%
- North America: 11%
- Europe (ex Spain): 9%
- Spain: 16%
- Others: 1%

- South America: 85%
- Middle East: 15%

## Main Projects under Execution

- **Waad Al Shamal (Saudi Arabia)**
- **CP5 Network Rail (UK)**
- **O&M solar plants (Spain)**
- **Mar de Plata (Argentina)**
- **A3T (Mexico)**
- **Cerro Dominador (Chile)**
- **Shuaibah (Saudi Arabia)**
- **Fulcrum (USA)**
Abengoa was awarded projects with a value of €1.5 billion in 2018, with a current backlog of €1.8 billion, on December 31\textsuperscript{st}, 2018.

### Main Projects

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dewa</td>
<td>Dubai</td>
<td>Technology and solar field of 3 x 200 MW parabolic trough.</td>
</tr>
<tr>
<td>Cerro Dominador</td>
<td>Chile</td>
<td>110 MW solar thermal tower plant with a 17,5 hour storage system.</td>
</tr>
<tr>
<td>Luneng</td>
<td>China</td>
<td>Procurement of engineering and technology for 50 MW solar thermal tower plant.</td>
</tr>
<tr>
<td>Rabigh</td>
<td>Saudi Arabia</td>
<td>The largest reverse osmosis desalination plant in the country. 600,000 m\textsuperscript{3}/d.</td>
</tr>
<tr>
<td>Salalah</td>
<td>Oman</td>
<td>Reverse osmosis desalination plant with a capacity of 114,000 m\textsuperscript{3}/day.</td>
</tr>
<tr>
<td>Agadir</td>
<td>Morocco</td>
<td>275,000 m\textsuperscript{3}/day reverse osmosis desalination plant for the supply of drinking water and 13,500 ha of irrigation.</td>
</tr>
<tr>
<td>Shuaibah</td>
<td>Saudi Arabia</td>
<td>Desalination plant with a capacity of 250,000 m\textsuperscript{3}/day by reverse osmosis.</td>
</tr>
<tr>
<td>Fulcrum</td>
<td>USA</td>
<td>Plant to produce 10 million gallons of aviation biofuels per year from municipal solid waste.</td>
</tr>
<tr>
<td>A3T</td>
<td>Mexico</td>
<td>260 MW e(220 MW guaranteed) and 120 ton/h of steam efficient cogeneration power plant.</td>
</tr>
<tr>
<td>WAS</td>
<td>Saudi Arabia</td>
<td>1,390 MW combined cycle: the largest hybrid solar-gas plant in the world.</td>
</tr>
<tr>
<td>Quebrada Blanca</td>
<td>Chile</td>
<td>Electrical substations for the second phase of the Quebrada Blanca mine.</td>
</tr>
<tr>
<td>Puerto Capurro</td>
<td>Uruguay</td>
<td>Construction of approximately 1,000 meters of quay in Montevideo.</td>
</tr>
</tbody>
</table>
Abengoa organizes its activity in several business areas: Energy, Water, Transmission and Infrastructure and Services, all of which are based on R&D and Innovation.

**Areas of Activity**

**Energy**
- Conventional and renewable energy generation
- Capabilities covering engineering, procurement, construction and commissioning.
- 9.3 GW of installed capacity in conventional generation
- Owned solar technology and leader in worldwide installed capacity.

**Water**
- Specialist in infrastructures for the integral water cycle.
- Excellence in technical capabilities and international positioning.
- Wide experience and track-record in water treatment and hydraulic infrastructures, being leaders in the international desalination market.
- Over 1.7 million m³/day desalinated water capacity and 2.2 million m³/day of drinking water.

**Transmission & Infrastructures**
- Leading international contractor in transmission and infrastructures for energy, industry, transport, environment and communications.
- Over 27,000 km of transmission lines and almost 330 substations built over the last 15 years.
- Railway business, with over 4,500 km of lines and 80 substations developed.

**Services**
- Service providers for infrastructure in the transmission, water, and renewable and conventional power generation sectors.
- Optimization of O&M, improving management and increasing production.
- 25 years of contracts average life.
Abengoa, through its Water business division, works as a global technological operator in this sector and integrates development, engineering, technology and project execution activities for public institutions, private and industrial clients.

It also provides sustainable solutions to the integral water cycle, both to the shortage of water resources, through large desalination and water treatment plants, and hydraulic infrastructures, as well as to the protection of the environment, with the construction of wastewater treatment plants urban and industrial.

Backlog (December 2018)

>490 M€
Abengoa, with more than 75 years of experience, is a leading company in the international desalination market and a worldwide reference in the construction of hydraulics infrastructures and treatment plants.
3 Products and references
3.1 Desalination
3.1 Desalination

Conventional and advanced reverse osmosis processes of seawater and brackish water to produce drinking and process water.

We provide water to a population of more than 18 million people

**United States**
- Donna 9,500 m³/d

**Mexico**
- Durango 1,000 m³/d

**South America**
- Chile 4,800 m³/d

**Spain**
- El Atabal 165,000 m³/d
- Carboneras 120,000 m³/d
- Cartagena 65,000 m³/d
- Baix Llobregat 60,000 m³/d
- Almería 50,000 m³/d
- Las Palmas 28,600 m³/d
- Les Fonts 5,000 m³/d
- Precosa 1,000 m³/d
- Villaricos 1,000 m³/d
- Valverde 600 m³/d

**Middle East and Asia**
- Taweelah. UAE 909,000 m³/d
- Rabigh. Saudi Arabia 600,000 m³/d
- Shuaibah. Saudi Arabia 250,000 m³/d
- Salalah. Oman 114,000 m³/d
- Qingdao. China 100,000 m³/d
- Chennai. India 100,000 m³/d
- Dubal. UAE 50,000 m³/d
- Barka I. Oman 45,000 m³/d

3.7 million m³/d desalinated water
2 million m³/d under construction

Abengoa is one of the leading companies in the international market and leader in the global desalination rankings.
3.2 Water treatment

Aguas Corrientes water treatment refurbishment and expansion plant. 600,000 m³/d. (Uruguay)
3.2 Water treatment

Central America
San Juan del Sur, Nicaragua 16,850 m³/d
Boaco, Nicaragua 9,700 m³/d

South America
Aguas Corrientes, Uruguay 660,000 m³/d
Arequipa, Peru 130,000 m³/d
Loja, Ecuador 43,200 m³/d

Asia
Ratnapura, Sri Lanka 13,000 m³/d

Africa
Xangongo, Cunene, Angola 24,500 m³/d

We provide drinking water to a population of more than 11 million people

Our solutions

Conventional and advanced processes of drinking water treatment.

Central America
San Juan del Sur, Nicaragua 16,850 m³/d
Boaco, Nicaragua 9,700 m³/d

South America
Aguas Corrientes, Uruguay 660,000 m³/d
Arequipa, Peru 130,000 m³/d
Loja, Ecuador 43,200 m³/d

Spain
El Carambolo 432,000 m³/d
Olivares 95,000 m³/d
El Conquero 90,000 m³/d
Huesna 90,000 m³/d
Pinyana 60,500 m³/d
Reus 30,000 m³/d
Oja-Tirón 28,000 m³/d
Amares y Brión 15,000 m³/d
Sallent, Avinyó, 13,000 m³/d

Africa
Xangongo, Cunene, Angola 24,500 m³/d

ABENGOA
3.3

Urban wastewater treatment and reuse

Ranilla wastewater treatment plant, 90,000 m³/d. (Spain)
Urban wastewater treatment and reuse

Central America
- Boaco, Nicaragua: 10,000 m³/d
- Ciudad Sandino, Nicaragua: 5,000 m³/d

South America
- Pariachi, Peru: 37,800 m³/d
- Melo, Uruguay: 19,500 m³/d
- Tacuarembó, Uruguay: 9,240 m³/d
- Buin Oriente, Chile: 7,250 m³/d

Asia
- Nasrullahgarj, India: 4,200 m³/d
- Maheswar, India: 5,000 m³/d

Spain
- Copero (Exp.): 255,000 m³/d
- Ranilla: 90,000 m³/d
- Baix Llobregat: 57,000 m³/d
- Motril-Salobreña: 34,100 m³/d
- Barranco Seco II: 24,300 m³/d
- El Vendrell: 21,000 m³/d
- Lluchmayor: 15,900 m³/d
- Rincón de la Victoria: 15,000 m³/d
- Meco: 14,000 m³/d
- Arroyo La Víbora: 10,800 m³/d

Physical-chemical processes, biological treatment, membrane bioreactors, advanced tertiary treatment, advanced oxidation processes, anaerobic digestion, sludge management.

Service a population of more than 6.5 million people

+1.5 million m³/d treated wastewater

+ 60 projects

+1.5 million m³/d treated wastewater

Our solutions

Abengoa in Water

Abengoa

 Spain

Central America

South America

Asia
3.4 Industrial wastewater treatment and reuse
Industrial wastewater treatment and reuse

Water treatment for power plants, process water treatment, mining wastewater treatment, iron and steel industries, biorefineries, advanced oxidation processes, zero liquid discharge, etc.

**United States**
- Solana: 14,100 m³/d
- Hugoton: 6,650 m³/d
- Carty: 490 m³/d

**South America**
- Punta Pereira, Uruguay (Various): 376,000 m³/d
- Cerro Dominador, Chile (ZLD): 300 m³/d
- La Sierra, Colombia: 240 m³/d

**Spain**
- ENCE. Pontevedra: 46,800 m³/d
- Zicuñaga, Guipuzcoa: 40,800 m³/d
- ArcelorMittal. Gijon (Various): 20,260 m³/d
- Aboño. Asturias: 20,160 m³/d
- ENCE. Huelva: 19,200 m³/d
- ArcelorMittal. Aviles (Various): 13,700 m³/d
- Son Reus (Mallorca): 3,120 m³/d
- Solucar (Sevilla): 2,600 m³/d
- Ineos Sulphur Chemicals (Bilbao): 720 m³/d
- Bioetanol Cartagena: 400 m³/d
- Babilfluente Salamanca: 375 m³/d
- Bioetanol Galicia: 300 m³/d
- Befesa. Cartagena (ZLD): 250 m³/d

**Mexico**
- Norte III (ZLD): 1,700 m³/d
- Hermosillo: 1,400 m³/d
- Durango (CCD): 1,000 m³/d
- El Saúz: 750 m³/d
- A3T: 300 m³/d

**Netherlands**
- Rotterdam: 39,120 m³/d

**Middle East**
- Dubal. UAE: 50,000 m³/d

**Africa**
- Hassi R'Mel, Algeria: 3,100 m³/d
- Ain Beni Mathar, Morocco: 2,900 m³/d

**+500,000 m³/d industrial water**
3.5

Hydraulic Infrastructures

Negratin-Almanzora water transfer (Spain)
Hydraulic Infrastructures

### South America
- **Loja supply system**, Ecuador
  - Leng: 45 km. Diam: 600 mm
- **Arequipa supply system**, Peru
  - Leng: 11 km. Flow: 260,000 m³/d
- **Quebrada de Manchay sup. and sew.**, Peru
  - Leng: 125 km. Diam: 500-560 mm. Flow: 17,280 m³/d. Pow: 4 MW.
- **Montevideo pumping station**, Uruguay
  - Leng: 80 km. Diam: 800-1200 mm

### Central America
- **Ciudad Sandino sup. and sew.**, Nicaragua
  - Leng: 70 km. Diam: 500-150 mm
- **San Juan del Sur sup. and sew.**, Nicaragua
  - Leng: 47 km. Diam: 500-150 mm
- **El Boaco sup. and sew.**, Nicaragua
  - Dam: 190,000 m³

### Europe
- **Denizli sup. and sew.**, Turkey
  - Leng: 440 km. Diam: 300-2400 mm
- **Canal Navarra irrigation system**, Spain
  - Hectares: 23,000
- **Almeria desalination plant reservoir**, Spain
  - Capacity: 50,000 m³
- **Jucar-Vinalopo pumping station**, Spain
  - Flow: 864,000 m³/d. Pow: 60 MW
- **Negratin-Almanzora pumping station**, Spain
  - Flow: 173,000 m³/d. Pow: 12 MW

### Africa
- **Agadir- Chtouka irrigation syst.**, Morocco
  - Hectares: 13,600
- **Jorf Lasfar pumping station**, Morocco
  - Diam: 2,500 mm. Flow: 864,000 m³/d
- **Tnine Gharbia pumping stat.**, Morocco
  - Flow (total): 233,000 m³/d. Pow (total): 2 MW
- **Shkirat pumping station**, Morocco
  - Flow: 311,000 m³/d. Pow: 6 MW
- **Cunene supply system**, Angola
  - Leng: 100 km. Diam: 560-710 mm

### Asia
- **Ratnapura supply system**, Sri Lanka
  - Leng: 6 km. Flow: 13,000 m³/d.
- **Roorkee sewerage system**, India
  - Leng: 18 km. Diam: 225-280 mm

**Global Statistics**
- +1,100 km large pipelines
- +300 projects

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**Abengoa in Water**

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**Our solutions**
3.6

Hydroelectric power stations

Hydroelectric power plant at the base of the Itoiz dam. 27 MW (Spain)
Hydroelectric power stations

Power stations at the base of dams, run-off river plants and taking advantage of chutes in open channels, power stations in large transport pipelines.

**South America**
- Bayano, Panama: 150 MW
- Baños V, Lima, Peru: 9 MW

**Spain**
- Itoiz, Navarra: 28 MW
- Lozoya, Madrid: 21 MW
- Canal de Navarra, Navarra: 20 MW
- Sahechores, Leon: 13 MW
- Tijola and Los Manueles, Almeria: 11 MW
- Atazar, Madrid: 10 MW
- Alange, Badajoz: 10 MW
- Aragon and Cataluña channel: 7 MW
- Zufre, Huelva: 5 MW
- Guadalhorce-Guadalteba, Malaga: 5 MW
- Aracena, Huelva: 5 MW
- Cerrato, Palencia: 4 MW
- La Minilla, Seville: 2 MW
- Pedrezuela and Valmayor, Madrid: 2 MW

MW installed: +400
Projects: +40
4 Strengths
Strengths

Excellence in technical skills and international positioning

Experience, references, internationalization and competitiveness: the basis of our growth

1. **Safety and health** comes first. Our accident rates are much lower than those of the sector. Frequency index with a reduction in 2017: 4.6.

2. **Technology and know-how**
   Proven experience in desalination, water and wastewater treatment and hydraulic infrastructures. Abengoa has a capacity of **more than 3.7 million m³ / day of desalinated water** throughout the world, of which **close to 2 million m³ / day are under construction**.

3. **International recognition**
   Presence in the 5 continents, in more than 30 desalination plants in 13 countries, with a recognized leadership position in the main world rankings (ENR, GWI, IDA).

4. **Experience. Technical support**
   Solid, committed and highly qualified team, with extensive experience in EPC and O & M, and specialized and competitive know-how, oriented to the satisfaction of our clients. Leadership in engineering and technology.

5. **Pipeline diversified in geographies and products**
   Wide product portfolio (desalination, wastewater treatment, water treatment, irrigation systems, pipelines and pumping, hydroelectric power plants, etc.). Great business opportunities in the short, medium and long term due to the growing shortage of water resources in many areas of the planet.
**Abengoa in Water**

Abengoa is internationally recognized by institutions specialized in the water sector.

- **2006**: Nominated Desalination Company of the Year (GWI*)
- **2007**:
  - Developer of the Year (GWI)
  - Best Desalination Plant of the Year: Cartagena (GWI)
  - Desalination Deal of the Year: Beni Saf, Algeria (GWI)
- **2008**: Nominated Desalination Contract of the Year: Tlemcen Honaine, Algeria (GWI)
- **2009**: Desalination Company of the Year (GWI)
- **2012**: Nominated Water Company of the Year (GWI)
- **2013**: Desalination Company of the Year (GWI)
- **2014**: Best Public Private Partnership Project (International Finance Magazine)
- **2015**: Water Company of the Year (GWI)
- **2018**: Nominated Desalination Company of the Year (GWI)

(*) Global Water Intelligence Magazine
Thank you