



# Water on principle

During its more than 75 years of history, Abengoa has always been at the forefront of hydraulic initiatives, with public and private institutions in the implementation, improvement and exploitation of regulation infrastructures, transport, distribution, irrigation and hydroelectric plants.

More than 1,000 km of large pipelines built

More than four million people drink water that has been pumped or transported through large pipelines constructed by this company.

- Supply systems.
- Sewerage systems.
- Land and sea outfalls.
- Canals and irrigation systems.
- Large diameter pipelines.
- Tunnels, galleries and wells.

More than 4 million people served

**Abengoa** applies innovative technology solutions for sustainability in the **infrastructures, energy and water** sectors. It has over 75 years of experience in engineering and construction, being specialists in the execution of complex "turnkey" projects or engineering, supply and construction projects (**Engineering, Procurement and Construction, EPC**) for third parties in four fundamental areas: energy, water, **services and transmission and infrastructure**.

Abengoa 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**.

It also works as a **global technological operator** in the water sector and integrates development, engineering, technology and project execution activities for public institutions, private and industrial clients.



## Regulation and transport

### More than 1,000 km of large pipelines

Abengoa is a specialist in hydraulic engineering, mainly in the realization of large pipelines for water transport.

In regulation and transport, Abengoa has a long experience with more than 40 pumping stations and more than 1,000 km of large pipelines:

- Dams.
- Dam maintenance and safety .
- Storage tanks and regulating ponds.
- Intake towers.
- Pumping stations.
- Pressure pipelines and their safety elements.

More than 40 pumping stations

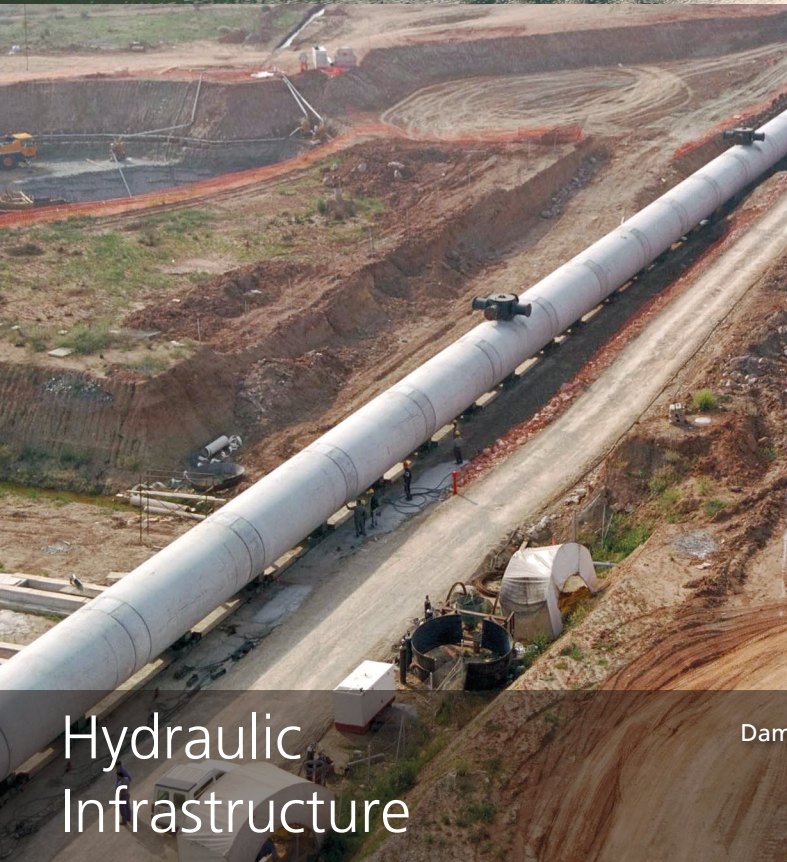
## Hydroelectric power stations

### More than 400 MW installed

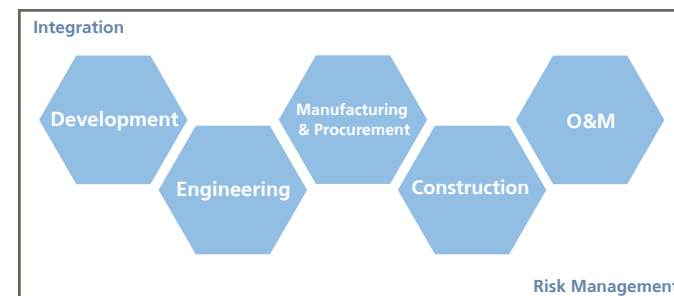
Abengoa promotes, designs and builds hydroelectric exploitations of different nature and has more than 400 MW installed:

- Power stations at the base of dams.
- Run-of-river plants and taking.
- Power stations in large transport pipelines.

More than 500 hectares irrigated or modernized



Dams, reservoirs and regulating ponds, intake towers, pumping stations, impulsions, large diameter pipelines, transfers, irrigation systems, supply and sewerage systems, land and sea outfalls. Hydrological and hydraulic infrastructure management.

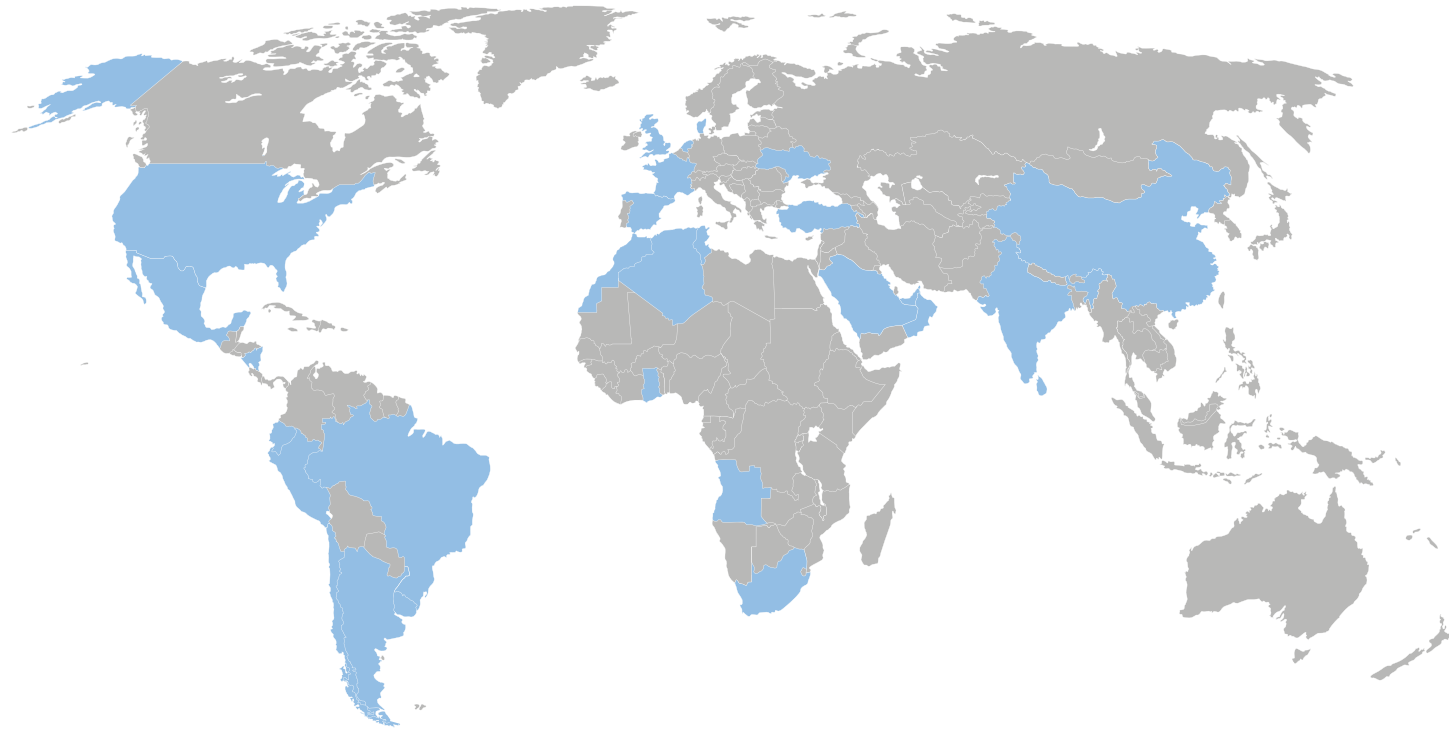


Hydraulic Infrastructure

[www.abengoa.com/water](http://www.abengoa.com/water)

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## Water



### Central America

Ciudad Sandino supply and sewerage system (Nicaragua).  
 San Juan del Sur supply and sewerage system (Nicaragua).  
 El Boaco supply and sewerage system (Nicaragua).

Length: 70 km. Diam: 500-150 mm.  
 Length: 47 km. Diam: 500-150 mm.  
 Length: 47 km. Diam: 500-150 mm.

### South America

Loja supply system (Ecuador).  
 Arequipa supply system (Peru).  
 Quebrada de Manchay supply and sewerage system (Peru).  
 Tierra Amarilla aqueduct (Chile).  
 Montevideo pumping line (Uruguay).  
 Bayano hydroelectric power station (Panama).  
 Baños V - Lima hydroelectric power station (Peru).

Length: 45 km. Diam: 600 mm.  
 Length: 11 km. WTP Flow: 260,000 m<sup>3</sup>/d.  
 Length: 400 km.  
 Length: 125 km. Diam: 500-560 mm. Flow: 17,280 m<sup>3</sup>/d.  
 Power: 4 MW.Pot: 4 MW.  
 Length: 80 km. Diam: 800-1,200 mm.  
 150 MW.  
 9 MW.

### Europe

Denizli supply and sewerage system (Turkey).  
 Irrigable area in Navarre Canal (Spain).  
 Almeria desalination plant water tank (Spain).  
 Jucar-Vinalopo pumping station (Spain).  
 Negratin-Almanzora pumping station (Spain).  
 Itoiz hydroelectric power station (Spain).  
 Lozoya hydroelectric power station (Spain).  
 Navarra Canal hydroelectric power station (Spain).

Length: 440 km Diam: 300-2,400 mm.  
 23,000 hectares.  
 Capacity: 50,000 m<sup>3</sup>  
 Flow: 10 m<sup>3</sup>/s Power: 60 MW.  
 Flow: 2m<sup>3</sup>/s Pot: 12 MW.  
 28 MW.  
 21 MW.  
 20 MW.

### Africa

Agadir- Chtouka irrigation network (Morocco).  
 Jorf Lasfar pumping station (Morocco).  
 Tnine Gharbia pumping station (Morocco).  
 Z.R. Loukkos pumping station (Morocco).  
 Shkirat pumping station (Morocco).  
 Cunene supply system (Angola).

Hectares: 15,000. Length: 809 km.  
 Diam: 2,500 mm. Flow: 10 m<sup>3</sup>/s.  
 Flow (total): 2.7 m<sup>3</sup>/s. Power (total): 2 MW.  
 Flow (total): 13.9 m<sup>3</sup>/s. Power (total):15 MW.  
 Flow: 3.6 m<sup>3</sup>/s. Power: 6 MW.  
 Length: 100 km. Diam: 560-710 mm.

### Asia

Ratnapura supply system (Sri Lanka).  
 Roorkee sewerage system (India).

Length: 6 km. WTP flow: 13,000 m<sup>3</sup>/d.  
 Length: 18 km. Diam: 225-280 mm.