

ABENGOA

Innovative technology solutions for
sustainability

ABENGOA



April, 2013

Abengoa (MCE: ABG) is an international company that applies innovative technology solutions for sustainable development in the energy and environment sectors, generating electricity from the sun, producing biofuels, desalinating sea water and recycling industrial waste

Sectors

Energy



20 MW CSP Tower (Seville, Spain)

76 %

- Power transmission
- Solar
- Cogeneration
- Biofuels

Environment



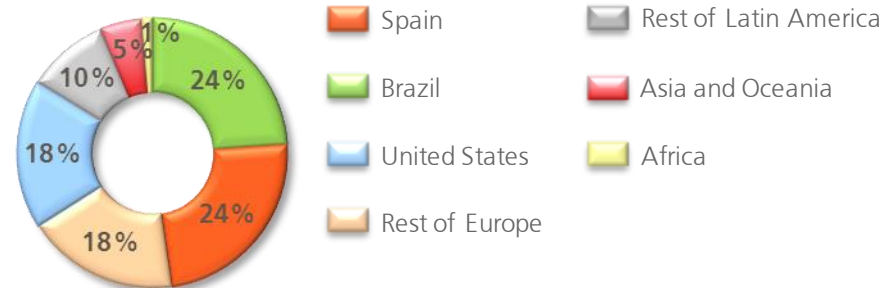
200,000 m³/day desalination plant. (Honnaine, Algeria)

24 %

- Desalination
- Industrial waste recycling

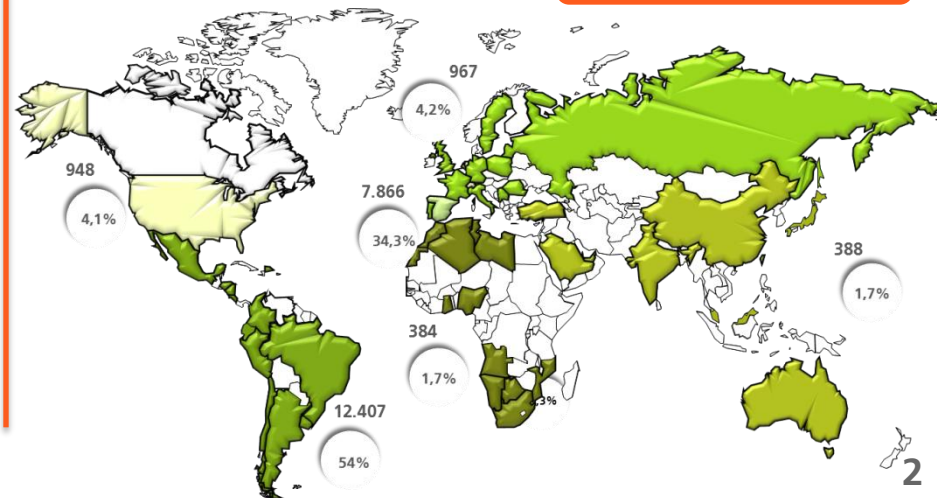
Geographies

Revenues (%)



Personnel

A total of 22,960 people



Note: figures as at September 2011.

Desalination in China

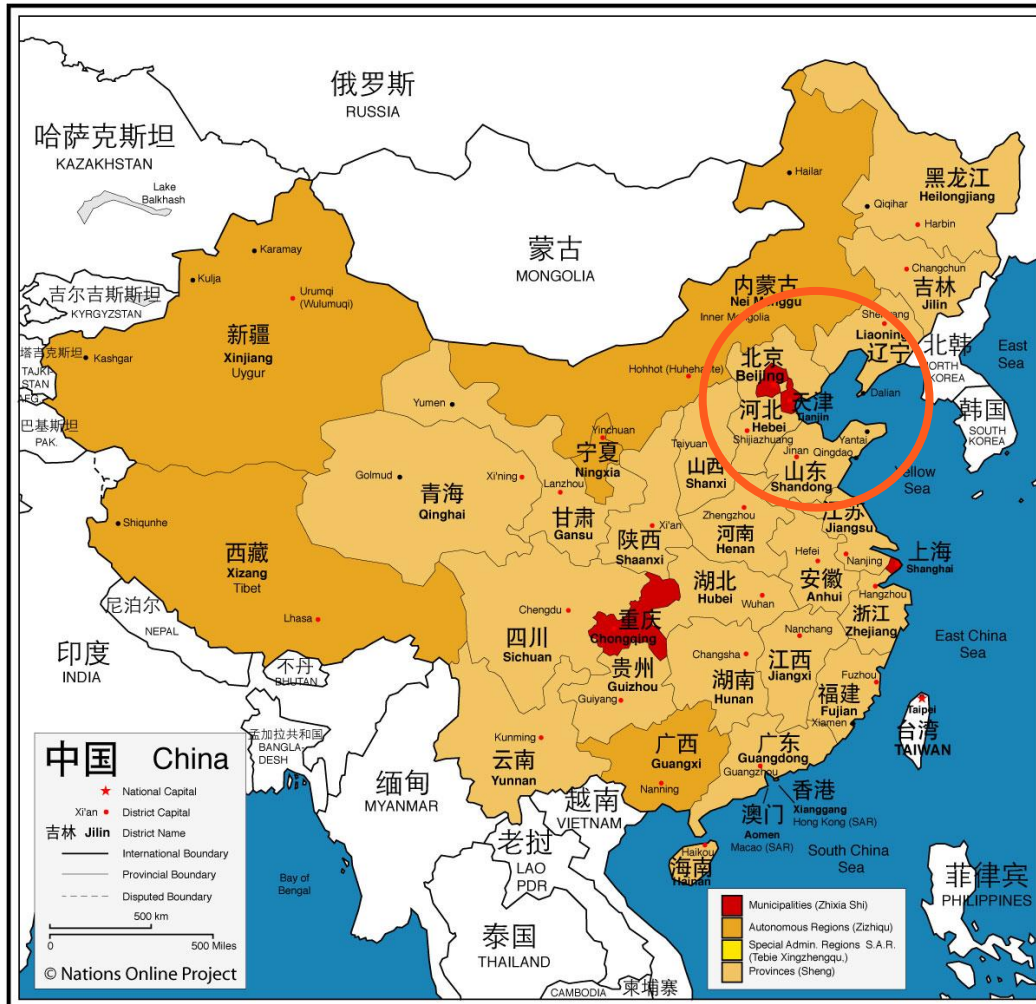
Highlights



April 2013

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ABENGOA WATER



Desalination is considered as part of the solution for the water scarcity in China

Most of the desalination capacity in china is located in the north east region surrounding the Bohai sea.

Main areas are Tianjin and Hebei province, Shandong and Liaoning provinces.

Water scarcity and high concentration of industries and population are a the main factors that make desalination a suitable solution for these regions

Tianjin is the centre of China's desalination activity, accounting for around a third of China's capacity. Tianjin's plans are for capacity to be at 480,000 m3/d by 2015,

Coastal cities Dalian and Qingdao are expected to be added as hubs for future projects.

The goal of the 12th FYP is set in 2.2 M m³/d for 2015

Currently the total installed capacity is estimated at 820 M m³/d in China

Government support is available for key projects, as desalination is considered a priority technology, tax exceptions for imported equipment and other incentives are currently implemented.

In its report to the first session of the 12th National People's Congress on 5 March 2013, the NDRC said it would accelerate development of the demonstration project for seawater desalination

NDRC announced on 15 March 2013 the first batch of regions and companies selected to carry out SWDP.

Type	Name	Applied by
1. Pilot Cities	Zhoushan city, Zhejiang province	Zhejiang DRC
	Shenzhen city	Shenzhen DRC
2. Pilot Areas	Binhai area, Tianjin	Tianjin DRC
	Bohai area, Cangzhou city, Hebei province	Hebei DRC
3. Pilot Islands	Luxi village (island), Dongtou county, Wenzhou city, Zhejiang province	Zhejiang DRC
4. Industrial Area	Hangzhou Water Treatment Technology Development Center	Zhejiang DRC
5. Pilot for Water Supply	Tianjin SDIC Jinneng Electric Power Co., Ltd.	SDIC
6. Brackish water desalination	Huan county, Qingyang city, Gansu province	Gansu DRC

Technical

- Low Water Temperatures
- Water contamination



Can be solved with the existing technology

Tariff

- Current tariffs for water in China are artificially low, making the competition hard for desalination.
- Low water tariffs don't reflect the scarcity of the resource.
- The water tariff should reflect the investment and operation costs.
- It is generally expected that water will be repriced in the coming years.
- Convergence between water tariffs and the cost of desalination is expected. We are already seeing that in Tianjin, where the industrial water tariff is around 7 RMB/m³

Financial & Legal

- Lack of BOT culture
- Risk allocation.
 - Technical risk
 - Water Demand
- Contractual Rigidness

Protectionism

- At present, no restrictions are applied to foreign equipment or technology.
- Imported equipment is still preferred by large scale project developers, mainly on account of the assurance related to stable quality and treatment efficiency.
- Localization is the trend. The government will apply new regulations that will limit foreign equipment a maximum of 30% of the project.

Thank You