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Abengoa Investor Day

Update on Bioethanol and desalination markets



Cartagena, September 29-30 2005

- **Update on European Biofuels markets**
- **Update on desalination**

- **The Spanish Government approved the “Plan de Energías Renovables en España (PER)” 2005-2010 (Renewable Energy Plan)**
- **Constitutes the revision of the “Plan de Fomento de las Energías Renovables en España (2000-2010)”**
- **Only 28,4% of the targets set by the original plan have been met**
- **Consumption of primary energy (both electricity and fuels) is rising rapidly and above GDP**
- **Two new Directives have been approved:**
 - **Directive 2001/77/CE sets a reference target of 29,4% of electricity coming from renewable sources**
 - **Directive 2003/30/CE for the promotion of biofuels, 2% by 2005 , 5,75% 2010**

	2005	2006	2007	2008	2009	2010	Total
New production capacity (Million liters)							3.106,4
➤ Bioethanol							1.485,0
➤ Biodiesel							1.621,4
Investment in new capacity (M€)	12,9	170,6	205,6	200,8	231,0	335,8	1.156,7
➤ Bioethanol							888,2
➤ Biodiesel							268,5
Fuel tax exemption (M€)	18,6	153,0	328,8	517,6	751,5	1.085,6	2.855,1
➤ Bioethanol							1.545,4
➤ Biodiesel							1,309,7
➤ Fuel consumption for transport (Ktep)						37.735	
➤ Biofuels produced (Ktep)						2.200	
➤ Percentage of Biofuels on fuels for transport Spanish Renewable Plan						5,83	
➤ Target Directive 2003/30/CE						5,75	

Concepts	2005	2006	2007	2008	2009	2010	Total
New production capacity (Million liters)	66,4	398,0	513,0	513,0	695,0	921,0	3.106,4
➤ Bioethanol	-	198,0	248,0	248,0	297,0	494,0	1.485,0
➤ Biodiesel	66,4	200,0	265,0	265,0	398,0	427,0	1.621,4
Investment in new capacity (M €)	12,9	170,6	205,5	195,1	235,0	336,4	1.155,5
➤ Bioethanol	-	133,8	158,9	150,9	172,0	272,2	887,8
➤ Biodiesel	12,9	36,8	46,6	44,2	63,0	64,2	267,7
Fuel tax exemption (M €)	19,6	158,8	337,5	516,2	754,4	1.080	2.866,6
➤ Bioethanol	-	79,2	178,4	277,6	396,4	594,0	1.525,6
➤ Biodiesel	19,6	79,6	159,1	238,6	358,0	486,1	1.341,0
Fuel consumption for transport (M liters)	37.804	39.051	40.294	41.540	42.784	44.030	
➤ Gasoline	10.051	9.767	9.481	9.197	8.911	8.627	
➤ Diesel	27.753	29.284	30.813	32.343	33.873	35.403	
Biofuels Production (M liters)	542	940	1.453	1.966	2.661	3.582	
➤ Bioethanol	326	524	772	1.020	1.317	1.811	
➤ Biodiesel	216	416	681	946	1.344	1.771	
Estimate of biofuels on fuels for transport(%) ^{1, 2}							
➤ Biofuels / Gasoline+Diesel	1,43	2,41	3,60	4,74	6,22	8,14	
➤ Bioethanol/Gasoline	0	2,03	4,70	7,54	11,12	17,21	
➤ Biodiesel/Diesel	0,08	1,42	2,25	2,92	3,97	5,00	

¹ Source: Research PriceWaterhouseCoopers y APPA, "Una estrategia de biocarburantes para España, 2005-2010", mayo 2005

² Does not include bioethanol used to produce ETBE today (326 M liters)

- **The Spanish Government has expressed a firm commitment to reach the targets set by the Biofuels Directive**
- **But Spain must implement new practical measures to achieve the targets set by the PER**
- **In order to achieve those targets, six new plants with the size of Salamanca, will have to be in operation by 2010**
- **The direct blend percentage must be increased to 10% as it has been in use in the US, without major problems in cars, fuel stations and logistic networks**

- In Europe, other states are taking a strong commitment to the Biofuels Directive
- France has announced a plan to reach the 5,75% target by 2008 (2 years ahead of the reference targets of the Directive)
- New tender on October 20 for new biofuel capacity totalling 1.8 million tonnes to reach its new 2008 target for 5.75 percent incorporation in fuels
- The new capacity would be split between 1.33 million tonnes of biodiesel and 465,000 tonnes of ethanol, according to the following schedule:
 - 180.000 tonnes by 2006
 - 355.000 tonnes by 2007
 - 1,265 million tonnes by 2008
- Prime Minister De Villepin announced that incorporation of biofuels in fuel would reach 5.75% in 2008, 7% in 2010 and 10% in 2015. The European Union had originally set a non-binding target for member states of 5.75 percent biofuel incorporation by 2010

Befesa: a global reference in desalination



➤ **Desalination : Befesa is one of the leaders in Spain...**

- More than 500.000 m³/day built in Spain

...and internationally 350.000 m³/d

- 2 BOO contracts in Algeria (250.000 m³/d)
- 1 BOOT contract in India (100.000 m³/d)

➤ **Befesa is one of the companies with largest references in the desalination market worldwide**

➤ **Competition:**

- Civil Construction companies (ACS, Ferrovial, FCC)
- Engineering groups (Black & Veatch, SNC Lavalin)
- Specialized water companies (Pridesa, Degremont, GE water, Vivendi)

Recent References in desalination

Location	Client	m3/day	Technology	Status
Almería, Spain	City of Almeria	50.000	Reverse Osmosis	Operating 2H 2004
Cartagena, Spain	Ministry of Environment	65.000	Reverse Osmosis	Operating 2Q 2005
Carboneras, Spain	Ministry of Environment	120.000	Reverse Osmosis	Operating 1H 2004
Atabal, Spain	Ministry of Environment	165.000	Reverse Osmosis	Operating 1H 2004
Skikda, Algeria	Sonatrach/Aec	100.000	Reverse Osmosis	In progress 1H 2007
Orán, Algeria	Sonatrach/Aec	150.000	Reverse Osmosis	In progress 2H 2007
Chennai, India	CMWSSB	100.000	Reverse Osmosis	Under financial closure

Market opportunities:

- **Plan AGUA, Spanish Ministry for the Environment 3.990 M €**
 - **14 new desalination facilities to be developed by end 2006**

- **Mediterranean, Gulf Countries and Central Asia key markets in the short term**

- **US, China & East Asia opportunities for the future**

- **Befesa is uniquely positioned throughout the value chain to capture this opportunity**

- **Befesa can apply a flexible approach acting as pure EPC contractor or EPC + Operation**

Beni Saf:
Capacity: 150,000 m³/day SWRO.

Skikda:
Capacity: 100,000 m³/day SWRO.

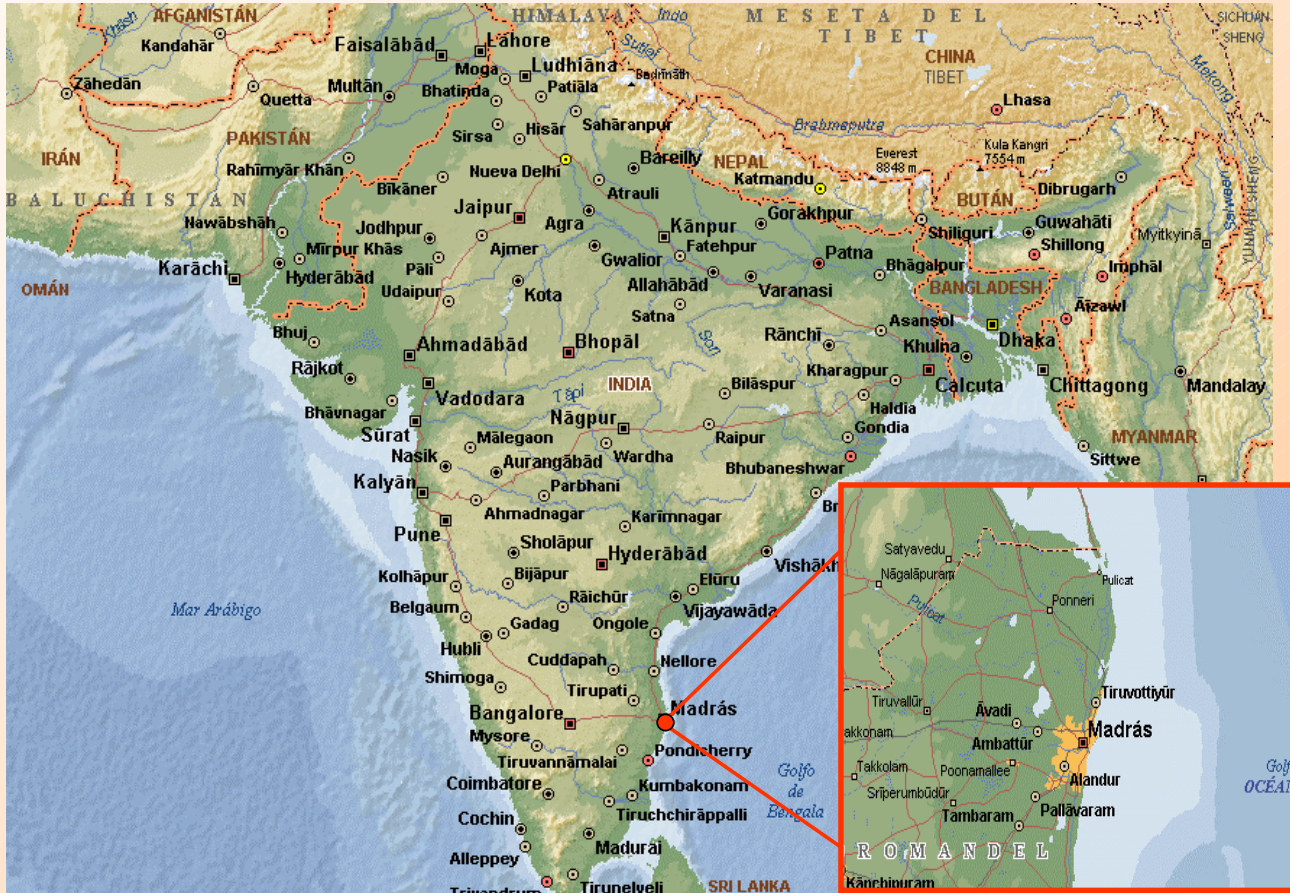


- **Location:** Skikda, Algeria
- **Investment:** 100 M USD
- **Capacity:** 150.000 m³/day
- **Project Awarded:** April 2004
- **Financial Close:** July 2005
- **Groundbreak:** Expected November 2005
- **Start of operations:** July 2007

- **Aguas de Skikda, S.p.a. was awarded the concession for design, construction and operation of a desalination plant in Skikda for a 25 year period**
- **Aguas de Skida is owned by:**
 - **51% JV of Spanish consortium (Befesa 50%, ACS 25%, Sacyr 25%)**
 - **49% Algerian Energy Company (50% Sonelgaz, 50% Sonatrach)**
- **EPC (Engineering, Procurement and Construction) Contract for JV Befesa (50%)-ACS (25%)-Sacyr (25%)**
- **Water Purchase Agreement between AdS and Sonatrach. Contains a pass-through for energy costs**
- **Non-Recourse Project Finance signed with Banque Nationale d'Algerie (disbursement pending)**

- **Location:** Beni Saf, Algeria
- **Investment:** 150 M USD
- **Capacity:** 150.000 m³/day
- **Project Award:** May 2004
- **Financial Close:** September 2005
- **Groundbreak:** Expected November 2005
- **Start of operations:** July 2007

- Beni Saf Water Company, S.p.a. was awarded the concession for design, construction and operation of a desalination plant in Beni Saf for a 25 year period
- Aguas de Skida is owned by:
 - 51% JV of Spanish consortium (Befesa 50%, ACS 25%, Sacyr 25%)
 - 49% Algerian Energy Company (50% Sonelgaz, 50% Sonatrach)
- EPC (Engineering, Procurement and Construction) Contract for JV Befesa (50%)-ACS (25%)-Sacyr (25%)
- Water Purchase Agreement between Bswc and Sonatrach. Contains a pass-through for energy costs
- Non-Recourse Project Finance signed with Banque exterieure d'Algerie (disbursement pending)



• Location:	Chennai, India
• Investment:	100 M USD
• Capacity:	100.000 m ³ /day
• Project Award:	August 2005
• Financial Close:	December 2005
• Groundbreak:	Expected February 2005
• Start of operations:	January 2007
• Concession term:	25 years

- Chennai Water Desalination Limited was awarded the concession for design, construction and operation of a desalination plant in Chennai (Tamil Nadu, India) for a period of 25 years

- Chennai Water Desalination Limited is owned by:
 - 74,9% IVRCL (Indian civil contractor)
 - 25,1 % Befesa
- EPC (Engineering, Procurement and Construction) Contract for Befesa (100%)

- Water Purchase Agreement between Cwdl and Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB). Contains a pass-through for energy costs

- Non-Recourse Project Finance planned for December 2005 with Infrastructure Development Finance Company Limited (IDFC)

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