

C Environmental dimension

Materials

Consumption of materials (t) *G4-EN1*

Consumption of materials (t)	2015
Oils, fats and waxes	300
Binding agents for construction	554,448
Aggregates and natural stone	673,548
Wood	10,697
Non-ferrous metals (Al, Cu, Zn, others)	52,456
Paper and cardboard	337
Plant-based raw material and process biomass	11,509,655
Coating material	3,404
Ceramic and glass materials	901,126
Materials of fossil origin	10,812
Ferrous metals	266,681
Minerals for industrial use	53,082
Plastics	7,117
Chemical products and additives	251,949
Others	2,359
Total	14,297,970

Water

Water withdrawal by source type and use (m³) *G4-EN8*

Water withdrawal by source type (m ³)	2015	2014	2013
River water	9,455,579	17,310,479	11,291,600
Seawater	221,199,378	161,825,953	170,975,651
Grid water	3,336,161	7,857,499	7,233,296
Well water	4,378,293	10,008,679	5,878,718
Rainwater	3,665	297,405	1,890,736
Used water	3,854,598	3,949,218	53,906
Total	242,227,674	201,249,232	197,323,907

Water withdrawal by type of use (m ³)	2015	2014	2013
Process water	238,250,036	196,420,223	189,886,295
Cooling water	3,194,216	3,062,896	1,672,633
Irrigation water	143,463	31,962	197,468
Sanitary water	278,071	290,974	342,223
Other uses	361,887	1,443,178	5,224,140

Recycled and reutilized water (%) *G4-EN10*

Water reutilization (%)	2015	2014	2013
Recycled and reutilized water (%)	2.35	10.83	8.59

Note: This calculation does not include water used in desalination processes.

Use of reutilized water (m³)	2015
Heating and air conditioning	295
Others	12,659
Process	409,115
Cooling	71,075
Thermal jump	77
Overall total	493,222

Discharges and spillages

Discharges (m³) *G4-EN22*

Discharges (m³)	2015	2014	2013
Delivered to third parties for reutilization	8,229,846	7 455 368	81,946,987
Discharged to surface water masses	121,599,041	94,421,928	96,379,204
Discharged to sewer networks or external facilities	600,880	1,115,880	877,762
Discharged due to soil infiltration	6,594	226,241	213,913
Dispersed or undefined land discharge	61,817	–	–
Discharged into the environment or delivered to external treatment facilities (steam)	2,824,353	2,938,105	2,259,249
Delivered to third parties or other Abengoa companies (steam)	–	–	37,408
Total	133,322,531	106,157,522	181,714,523

Spillages *G4-EN24, G4-EN26*

In 2015, a total of 80 accidents were reported. None of them caused any significant damage to the environment. The cost of the actions taken by the company to remedy the damage totaled € 127,009.

Substance spilled	Location	Recovery cost (€)	Description
Various substances: oil, ethanol, etc.	United States	70,423	Cumulative reporting of 40 minor spills occurring in 2015
Lubricants	Brazil	30,425	During a fuel tank inspection, an oil spill occurred upon opening the inspection hatch. Steps were taken to resolve the incident and analysis was performed to ensure that there were effectively no traces of contamination.
Ethanol fermentation mixture (containing 10 % ethanol)	United States	10,765	Fermentation tank overflow that caused the spillage of the fermentation mixture onto the floor.

Energy

Direct energy consumption by source (GJ) *G4-EN3*

Type of energy (GJ)	2015	2014	2013
Gas natural	32.108.747	64.897.055	55.074.305
Biomasa	15.907.281	16.688.290	15.269.801
Derivados del petróleo	2.682.318	2.241.744	2.168.933
Biocombustibles	63.410	75.887	74.499
Otros	1.187	24.560	1.096
Total	50.762.943	83.927.536	72.588.634

Intermediate energy consumption (GJ) *G4-EN3*

Intermediate energy consumption (GJ)	2015	2014	2013
Electrical power ⁽¹⁾	3,483,537	3,409,157	3,463,716
Thermal power	1,356,158	1,359,623	1,433,270

(1) In 2015, the consumption of electricity from renewable energy sources totaled 18 %.

Energy production (GJ) *G4-EN3*

Type of energy (GJ)	2015	2014	2013
Biofuels	43,903,987	57,175,927	50,446,231
Electrical ⁽¹⁾	8,584,401	28,371,617	21,232,968
Thermal	– ⁽²⁾	15,882,830	13,232,529
Biomass	6,981	122,410	8,770
Total	52,495,369	101,552,784	84,920,498

(1) Of the electricity produced, 28 % came from renewable sources.

(2) At the close of this report, the thermal energy data was not available.

Intermediate energy consumption by primary source (GJ) *G4-EN4*

Indirect energy consumption (GJ)	2015	2014	2013
Renewable primary source	922,788	1,036,400	1,044,780
Non-renewable primary source	9,208,766	8,114,322	8,244,417

Waste

Waste generated by treatment method chosen *G4-EN23*

Treatment method	Waste generated in 2015 (t)
Reutilization	19,939.51
Recycling	26,678.73
Composting	2,034.72
Recovery	970.01
Incineration	409.98
Landfill	634,537.13
Permanent storage	34,599.67
Others	17,816.23

Waste generation by type (t) *G4-EN23*

	2015	2014	2013
Non-hazardous waste	727,083	111,087	240,843
Hazardous waste	9,903	11,464	33,555
Total	736,986	122,552	274,398

Other emissions

NOX, SOX and other significant atmospheric emissions (t) *G4-EN21*

	2015	2014	2013
CO	9,399	11,377	15,963
NOx	11,968	6,505	9,929
COVs	7,917	1,050	4,182
Others	4,371	4,833	3,749
Particles	2,731	2,885	2,247
SOx	899	899	770

Emissions of ozone layer-depleting substances (t) *G4-EN20*

	2015	2014	2013
Emissions of ozone layer-depleting substances (t)	0.006	0.02	2.47