
CLIMATE CHANGE

Carbon neutral



ACCIONA has taken climate change mitigation as one of its strategic objectives. To this end, it commits its investment capacity and strives to achieve carbon neutrality in its operations through energy efficiency and by offsetting its emissions through the purchase of CO₂ emission allowances, which support the development of its renewable facilities in developing countries.

CHALLENGES 2016

To be a carbon neutral company.



PROGRESS IN 2016

Achievement of carbon neutrality in 2016, becoming a company with a net-zero emissions balance and having offset the generation of emissions that could not be reduced through the cancellation of certified carbon credits.

The company has achieved carbon neutrality by **improving in energy efficiency**, increasing electricity consumption from renewable resources and offsetting emissions through the purchase of CO₂ emission allowances

CHALLENGES 2017



Maintain its status as a carbon neutral company in 2017.



Promote the company's **plan to reduce emissions**, as part of the Sustainability Master Plan 2020.

HIGHLIGHTS IN 2016

» 14.8 million tonnes of CO₂ avoided thanks to its energy generation activities from exclusively renewable sources

» Third consecutive year measuring the greenhouse gas emissions from 100 % of its supply chain

Fighting climate change – a strategic priority for ACCIONA

The fight against climate change is a strategic priority for ACCIONA, which is stronger than ever this year – if that is possible – thanks to the carbon neutrality commitment made by the company under its new Sustainability Master Plan 2020 (SMP 2020).

ACCIONA's activities are carried out based on a low-carbon business portfolio, which enables it to:

- Reduce or mitigate the adverse effects of climate change.
- Decrease greenhouse gas (GHG) emissions into the atmosphere through the generation of renewable energy.
- Promote energy efficiency.
- Respond to global demands regarding renewable energy, sustainable infrastructures, water and services.

ACCIONA also extends its commitment to fight climate change to the entire value chain through:

- Collaboration and cooperation with other companies, public institutions, social organisations, suppliers and other stakeholders.
- Awareness-raising and training.
- Transparent and comprehensive information on this subject.

MEETING THE SMP 2020'S CARBON NEUTRALITY OBJECTIVE

Since ACCIONA committed to carbon neutrality at the Paris climate conference, the company has taken the necessary steps to address this milestone through its new SMP 2020, developing a **Carbon Offsetting Model** in which 100 % of the emissions that is unable to reduce will be offset voluntarily.

Through this, the 817,204 t CO₂e generated in 2016 have been offset through the purchase of certified carbon credits.

Offsetting consists of accounting the generated emissions as a direct cost in each company's businesses through an external verification of the emissions. For ACCIONA, this means that the consideration of an internal carbon price, not only includes a probable risk in the valuation of future investments but also constitutes a real cost to be considered in any business operation.

ACCIONA'S COMMITMENT IN THE FIGHT AGAINST CLIMATE CHANGE

ACCIONA has a climate change policy approved by its Board of Directors, which sets out the company's commitment and principles to combat this threat. ACCIONA considers critical to lead the transition to low-carbon business models, which reduce or mitigate the effects of climate change. To this end, it wants to promote the adoption of ambitious global objectives to reduce emissions, in addition to the development of projects, products and services that contribute to the reduction of GHGs. ACCIONA plays a fundamental role in this objective, facilitating access to renewable energy, water and sustainable environmental infrastructures, and promoting energy saving.

Risks and opportunities associated with climate change

ADAPTATION TO AND MANAGEMENT OF CLIMATE RISKS AT ACCIONA

The management of the risks associated with climate change is part of the company's general risk management strategy and is promoted by its Board of Directors.

As is the case for environmental risks, it is carried out through the application of a methodology that is used to identify, assess and inform ACCIONA's decision-making bodies of potential events that could have an impact on the company and its centres. Through this, action policies and tolerance thresholds are established that provide a reasonable guarantee of the achievement of objectives.

The climate risk management process covers the following aspects:

- Physical risks: variation in average and extreme temperatures, variation in average rainfall, change in the rainfall patterns, change in the patterns of extreme events, rise in sea level, etc.
- Regulatory risks: climate policies arising from international decarbonisation commitments and objectives, carbon pricing systems, reporting and/or emissions reduction objectives, product efficiency regulations and standards, renewable energy regulations, etc.
- Other risks: impact on the supply chain, effect on habitats and ecosystems, changes in consumer behaviour, changes caused to human and cultural environments, fluctuations in the socioeconomic conditions, impacts on interest groups, etc.

ACCIONA committed to carbon neutrality at the Paris climate summit

In the process to identify and assess the risks associated with climate change, different exposure variables are analysed and different tools are used such as: monitoring of energy consumption and CO₂ emissions in the centres, actions to identify the generation of CO₂ emissions in the supply chain, energy generation management tools, financial analysis of the company, identification maps of climate risks provided by reference bodies (*AR5 and AR4* Reports of the IPCC, Aqueduct-WRI, Germanwatch and World Bank), identification tools for legal requirements, procedures to manage the social impact, environmental management procedures, and the experience of the company's qualified staff.

The climate risk management process involves all of the company's businesses and is conducted annually.

In particular, it is important to note the performance in 2016 of an environmental risk analysis associated with climate change for ACCIONA and its supply chain. Based on the methodology of the Intergovernmental Panel on Climate Change (IPCC), analysis has been conducted on the interrelationship between the most significant dangers, and the exposure of ACCIONA and its suppliers (according to the activities in each country), in addition to the vulnerability to each danger.

MITIGATION OF CLIMATE CHANGE THROUGH BUSINESS

Through its different businesses, the company contributes to the mitigation of climate change. For example, through electricity generation from renewable sources, ACCIONA Energy contributes to the displacement of fossil fuels in countries' electricity mix.

In the case of Infrastructure, solutions are offered in the area of energy efficiency by optimising consumption and offsetting CO₂ emissions (for more information see the "ACCIONA Energy's Commitment and ACCIONA Infrastructure's Commitment chapters").

In 2016, ACCIONA avoided the emission of 14.8 million tonnes of CO₂ thanks to its energy generation activity from renewable sources.

Weekly trends in emissions avoided by ACCIONA as a result of renewable production are indicated by an emission meter on the company's website: <https://www.acciona.com/emissions-meter>

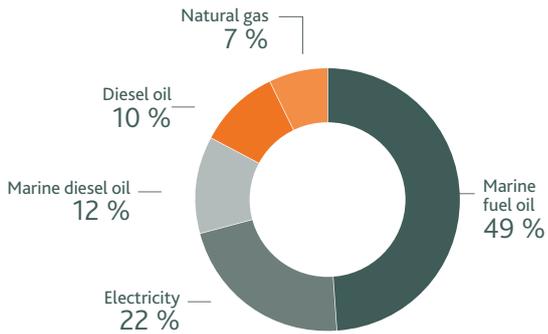
ENERGY CONSUMPTION THAT PRIORITISES RENEWABLES

In 2016, the company's energy consumption was 15,998 TJ, 41 % of which was from renewable sources. The company's energy intensity from fossil fuels was 1.59 TJ/€M of sales, while the energy intensity from renewable sources was 1.09 TJ/€M of sales. The energy consumption ratio of ACCIONA's buildings totalled 191 kWh/m².

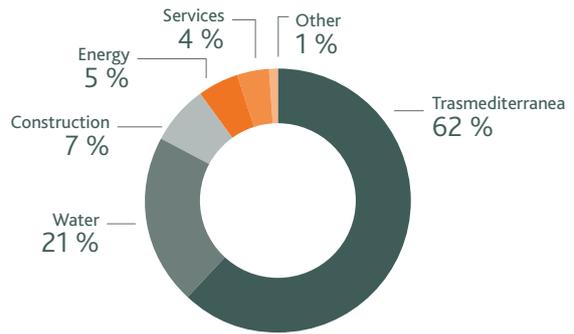
Million tonnes of CO₂ avoided



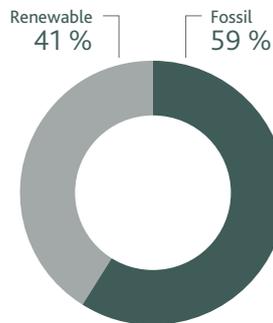
Fossil energy consumption by source



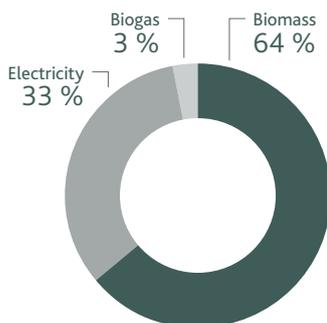
Fossil energy consumption by business



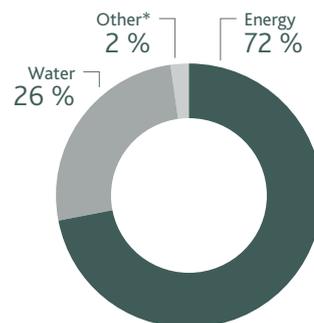
Energy consumption



Renewable energy consumption by source



Renewable energy consumption by business



* Others include: the rest of ACCIONA Infrastructure and Other businesses.

The company guarantees its customers **long-term savings** through the execution of an energy management contract

THIRD-PARTY ENERGY CONSUMPTION

The most significant energy consumption outside of the organisation, calculated in accordance with the company's scope 3 categories, is as follows:

External energy consumption (GJ)

| Type | 2014 | 2015 | 2016 | |
|--|-------------------------|---|---|------------|
| Upstream leased assets | 3,098,024 | 1,910,837 | 2,376,162 | |
| Downstream leased assets | 8,337 | Incorporated to internal energy consumption | Incorporated to internal energy consumption | |
| Employees commuting | 448,162 | 681,871 | 696,541 | |
| Business travel | 227,058 | 231,023 | 239,899 | |
| Waste generated in operations | 380,344 | 199,381 | 293,148 | |
| End of life treatment of sold products | 2,444 | 11,744 | 1,235 | |
| Use of sold products | N/A | 21,005 | 6,437 | |
| Investments | N/A | N/A | 308,264 | |
| Suppliers: 100 % of the purchase of goods and services | Coal | 3,407,828 | 5,102,071 | 3,514,295 |
| | Oil | 20,284,487 | 23,106,810 | 14,501,044 |
| | Natural gas | 5,206,782 | 755,234 | 4,187,832 |
| | Electricity (renewable) | 913,848 | 1,385,922 | 764,932 |
| | Electricity (nuclear) | 660,496 | 778,273 | 302,826 |
| Total | 34,637,811 | 34,163,165 | 27,192,615 | |

N/A: not available

CARBON NEUTRALITY: REDUCING AND OFFSETTING OUR EMISSIONS

One of the most ambitious objectives of the SMP 2020 is for ACCIONA to achieve carbon neutrality since 2016. All emissions that the company has been unable to reduce through the application of reduction strategies have been offset through the purchase of certified carbon credits.

The carbon neutrality commitment represents a challenge for all the company's businesses, which must be met to boost reduction efforts even further.

CALCULATION OF EMISSIONS GENERATED

The emissions generated are calculated according to the criteria defined in the GHG Protocol, under the financial control scheme.

This year, for the first time, ACCIONA has also consolidated as a CO₂ equivalent its CH₄, N₂O and SF₆ emissions, which has had an impact on the final emissions figure by an additional 2 %.

The conversion factors used are those indicated by:

- The Intergovernmental Panel on Climate Change (IPCC), in the 2006 IPCC Directives for GHG inventories.
- The International Energy Agency and Red Eléctrica de España (the Spanish electricity system operator).
- Department for Environment, Food and Rural Affairs of the United Kingdom.
- The European Environment Agency.

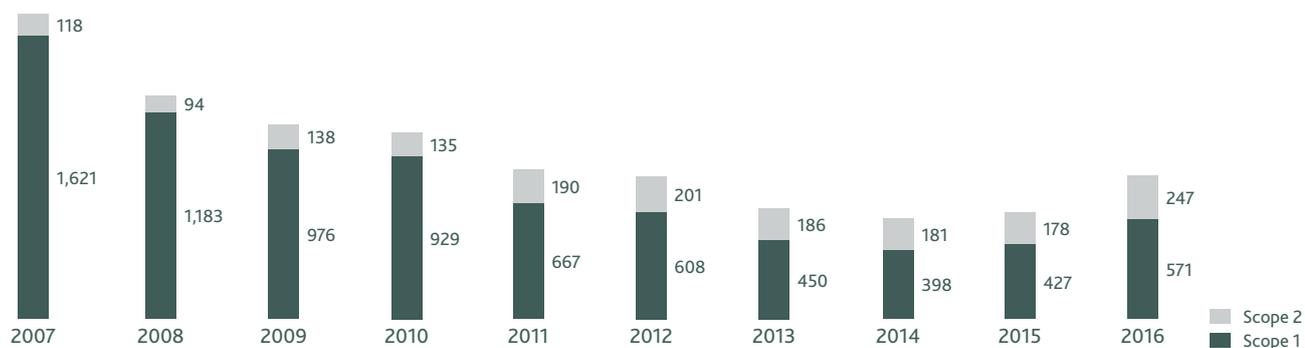
EMISSIONS GENERATED (SCOPES 1 AND 2)

The total CO₂e emissions from scopes 1 and 2 generated in 2016 were 817,204 tonnes, 570,601 t CO₂e of which correspond to scope 1, and 246,603 t CO₂e to scope 2 Market-based (and 395,272 t CO₂ of scope 2 Location-based).

The rise in scope 1 emissions was mainly driven by the increased business activity of Trasmediterranea, while the increase in scope 2 emissions was primarily due to desalination activities in countries suffering from water stress, in which electricity supply from renewable sources is not possible yet.

Trend of emissions generated

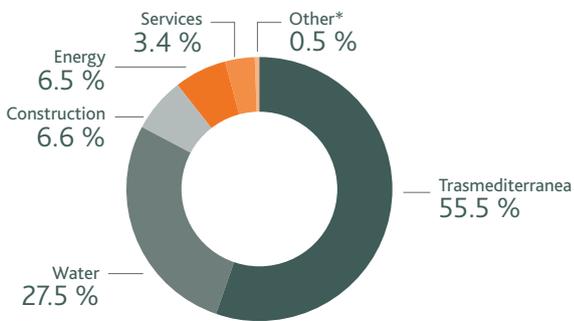
(thousands of tonnes of CO₂)



Note 1: Scope 1, direct emissions produced by the company, generally through the burning of fuels. Scope 2, indirect emissions generally due to electricity consumption.

Note 2: this year, for the first time, ACCIONA has also consolidated as a CO₂ equivalent its CH₄, N₂O and SF₆ emissions.

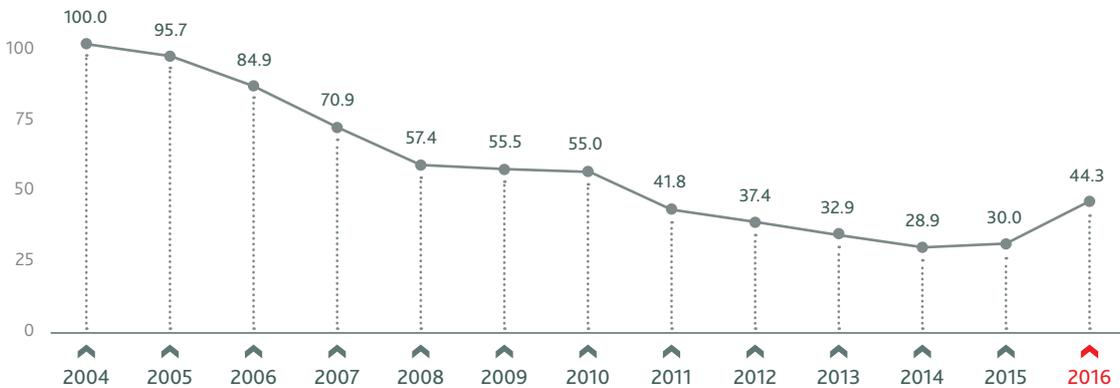
Percentage of CO₂ emissions by business line



* Other businesses include: Industrial, ACCIONA Inmobiliaria and Grupo Bodegas Palacio 1894.

ACCIONA's carbon intensity was 136.7 t CO₂e/€M of sales (scopes 1 and 2). As for the company's buildings, the ratio of CO₂ emissions was 30 kg CO₂e/m².

CO₂e intensity index (t CO₂e/sales with a base of 100 in 2004)



The categories consolidated under the Suppliers heading have **reduced their emissions by 30 %** compared to 2015

SCOPE 3 EMISSIONS

The scope 3 emissions analysed by ACCIONA cover the following categories: leased assets to the organisation, employees commuting, business trips, waste generated by the company and from the products it sells, use of products sold by the organisation, investments, and supplier-purchases of goods and services.

It is important to highlight the drop in emissions mainly due to the categories consolidated under the Suppliers heading, which have been reduced by 30 % compared to the same figure the previous year.

For the third year running, ACCIONA has calculated and analysed the GHG emissions produced throughout its supply chain, being some of its conclusions that only 17 % of the emissions generated are due to direct suppliers of ACCIONA, or that the decrease in emissions observed has been mainly due to the higher volume of purchases made to sectors with fewer specific emissions.

Also in relation to the supply chain, during the past year the company made progress in the development of the SCO2PE by ACCIONA programme, based on collaboration with suppliers to promote the reduction of emissions in the supply chain.

Scope 3 emissions (t CO₂)

| Categories | 2013 | 2014 | 2015 | 2016 | |
|--|--|------------------|----------------------------------|----------------------------------|---------|
| Upstream leased assets | 192,609 | 226,499 | 144,587 | 182,917 | |
| Downstream leased assets | 463 | 534 | Incorporated into scopes 1 and 2 | Incorporated into scopes 1 and 2 | |
| Employees commuting | 29,417 | 32,651 | 0 | 50,545 | |
| Business travel | 13,959 | 16,352 | 0 | 16,927 | |
| Waste generated in operations | 16,948 | 28,183 | 14,774 | 22,057 | |
| End of life treatment of sold products | 150 | 181 | 870 | 93 | |
| Use of sold products* | - | - | 1,666 | 488 | |
| Investments | - | - | - | 15,865 | |
| Suppliers: 100 % of the purchase of goods and services | Purchased goods and services | 515,013 | 912,036 | 957,028 | 632,060 |
| | Capital goods | - | 144,911 | 347,264 | 411,865 |
| | Fuel consumption | 81,994 | - | 104,145 | 105,595 |
| | Electricity consumption | 10,828 | - | - | - |
| | Upstream transportation and distribution | 66,981 | 288,632 | 487,056 | 164,759 |
| TOTAL (t CO₂) | 928,363 | 1,813,864 | 2,042,474 | 1,603,171 | |

* Sale of homes in the ACCIONA Inmobiliaria area

THE EUROPEAN UNION'S CO₂ EMISSIONS TRADING SYSTEM

ACCIONA has five solar thermal installations subject to the EU emissions trading system, which use natural gas as an auxiliary source of energy. These facilities use the best available techniques for minimising their CO₂ emissions into the atmosphere.

Facilities subject to the EU emissions trading system

| Facility | Emissions verified in 2016 (tonnes of CO ₂) | Emission allowances acquired in 2016 |
|-----------------------------|---|--------------------------------------|
| Termosolar Alvarado | 2,696 | 4,500 |
| Termosolar Palma del Río I | 556 | 0 |
| Termosolar Palma del Río II | 540 | 300 |
| Termosolar Majadas | 2,889 | 0 |
| Termosolar Orellana | 1,220 | 800 |

OTHER EMISSIONS

Overall NO_x emissions in 2016 totalled 12,298 tonnes, SO_x totalled 2,888 tonnes and PM10 totalled 795 tonnes. The rises in these figures were primarily due to the increased activity of Trasmediterranea. SF₆ emissions totalled 0.18 tonnes. Lastly, biogenic emissions amounted to 437.654 t of CO₂.

Other emissions (t)

| | 2013 | 2014 | 2015 | 2016 |
|-----------------|-------|-------|-------|--------|
| PM10 | 599 | 565 | 641 | 795 |
| NO _x | 9,087 | 8,681 | 9,590 | 12,298 |
| SO _x | 2,040 | 1,935 | 2,237 | 2,888 |

SPECIFIC PLANS TO REDUCE ENERGY CONSUMPTION AND EMISSIONS IN ALL BUSINESSES

To achieve the emissions reduction objectives, the company's Sustainability Master Plan 2020 considers for the preparation of plans and programmes to assess and implement measures in the area of energy efficiency (for more information see the ACCIONA Energy's Commitment, ACCIONA Infrastructure's Commitment and Other businesses' Commitment chapters).

ENERGY EFFICIENCY FOR CUSTOMERS

Energy efficiency plays a fundamental role in the fight against climate change and, in line with its corporate strategy, ACCIONA also passes this on to its customers.

For more than five years, the company has had a distinctive offer with high added value in the range of energy services it provides (certified according to standard ISO 50001). Assuming part or all of the initial investment, the company guarantees its customers long-term savings through the execution of an energy management contract.

Similarly, in many projects undertaken by ACCIONA across all its business lines, economically viable design and technical modifications are proposed to customers, resulting in energy savings or improved output during operation.

SUSTAINABLE MOBILITY

During 2016, ACCIONA carried out initiatives in the field of sustainable mobility in various areas, as described below.

Promotion of sustainable mobility in the company

This involved an increase in the number of charge points for electric vehicles in ACCIONA's main head offices. The number of points where employees can charge their electric vehicles in the company was extended to a total of 28.

In addition, ACCIONA actively participated in the promotion of alternative means of transport to private vehicles, such as bicycles, for commutes to work. As a result, during European Mobility Week an internal campaign had an impact on the use of this means of transport, obtaining an increase in the number of employees who choose this option in their commuting to work.

Promoting sustainable mobility among its interest group

In this area, it is worth highlighting the participation for the third year running of the ACCIONA 100 % EcoPowered in the prestigious Dakar rally. It remains the only electric vehicle to date to have taken part in the rally. The ACCIONA 100 % EcoPowered successfully completed its journey around the demanding stages of the challenge, also demonstrating the viability of the electric vehicle in extremely demanding conditions.

In relation to its customers, it is important to note the sustainable mobility recommendations as part of the Guide to planning sustainable events created and distributed by ACCIONA Productions and Design. In the third chapter, corresponding to the area of Mobility and Transport work, the company discusses, explains and illustrates in detail the considerations to be taken into account in terms of mobility for the organisation of a sustainable event.

ACCIONA also participated in the Madrid Sustainable Mobility Week initiative, for which it provided Madrid City Council with three models of electric vehicles to use daily in maintenance works in the capital's most iconic green areas.

PARTICIPATION IN THE CARBON MARKETS

ACCIONA actively participates in the development of projects associated with the fight against climate change, and supports the transfer of clean technologies through the use of flexible mechanisms, such as the Clean Development Mechanism (CDM). In 2016, ACCIONA undertook eight CDM projects in Mexico, India, Chile and Costa Rica, making up almost 750 MW of renewable power installed.

ACCIONA also plays a role in the voluntary carbon market through the Verified Carbon Standard (VCS) programme, with two wind power projects in the US with a joint capacity of 255 MW.

The 702,672 plantations made by ACCIONA in 2016 will absorb more than 3,000 tonnes of CO₂ equivalent¹

ORGANISATION OF CARBON NEUTRAL EVENTS

ACCIONA Productions and Design (APD) tackles large-scale international projects in the area of organisation and theme selection for museums, exhibitions, shows and/or conferences. As a differentiating factor, since 2011 the company has also offered its customers the organisation of carbon neutral events.

The Corporation has continued to hold carbon neutral events with other interest groups, including, in 2016, the executive management meeting, the training and management committees of EROM (Services) and open days with strategic suppliers.

EMISSIONS AVOIDED THROUGH OUR PLANTATIONS

Throughout 2016, the company carried out projects involving restoration of affected areas and landscape integration that required the planting of various types of trees, shrubs and flowers in a total of seven countries.

Green areas and tree nurseries have also been created and maintained, and plantations have been developed in areas that are degraded or lacking in vegetation, in order to increase the diversity of native vegetation and to support local species.

2016 ACCIONA plantations

| Type | No. of specimens |
|-------------------------|------------------|
| Trees | 163,770 |
| Shrubs and flowers | 538,902 |
| Total specimens planted | 702,672 |

¹ Source: Carbon Sinks, Climate Change Office of the Ministry for the Environment, considering the maritime pine (*Pinus pinaster*) as a typical tree, and based on the assumption that shrubs absorb one tenth as much as a tree.