



# ANDALUSIA

**POPULATION:** 8,384 MILLION (2018)

**GHG TARGET:** -20% BY 2020 COMPARED TO 1990; -30% BY 2030 COMPARED TO 2005

**SCOPE 3 AVAILABLE**

## The national leader for renewables

### Climate policy governance and integration

Andalusia is the first autonomous Spanish community to have adopted, since 2002, an independent strategy to fight climate change. Based on the Andalusian Climate Plan 2007-2012 (PAAC). This founding plan is, still today, the cornerstone of Andalusia's climate policies, and has become the climate component of the Andalusian Sustainable Development Strategy 2030, that raises the reduction target in 2020 and 2030. More recently, the Andalusian Parliament adopted [Law 8/2018](#) (in force since January 2019), that creates an Interdepartmental Climate Change Commission, a transversal commission in charge of planning climate measures, as well as that of the Andalusian Office for Climate Change that will be the administrative unit for managing mitigation, adaptation and communication policies.

At the local level, the Junta Andalusia Environment Council as well as the Andalusia Federation of Municipalities and Provinces have been organising the [Ciudad 21](#) programme which in 2011 became [Ciudad Sostenible](#). It groups together 291 member municipalities – where 90% of the Andalusian population lives – which are supported in the implementation of over 600 urban development projects. Andalusia may be the most emitting region in Spain, with 14% of GHG emissions, but it also accounts for nearly 18% of the population ([Lavanguardia](#), 2018).

### Climate policy tracking

According to the [Agriculture, livestock, fisheries and sustainable development Council](#) of Andalusia, the total of GHG emissions in the region has decreased by 21.7% between 2005 and 2017. The decrease observed since 2005 does not compensate the emissions increase that took place in the 1990s, since during the 1990-2015 period, emissions grew by 40%. To calculate its emissions, the region differentiates its so-called 'non-diffuse' emissions (RCDE), subject to the European Emissions Trading System (EU ETS) (electricity production and cement industry, steel, etc.), from diffuse emissions related to energy use (transport, agriculture, waste).

In 2017, the latter were slightly higher than the former, with 51.7% of total emissions. Transport accounts

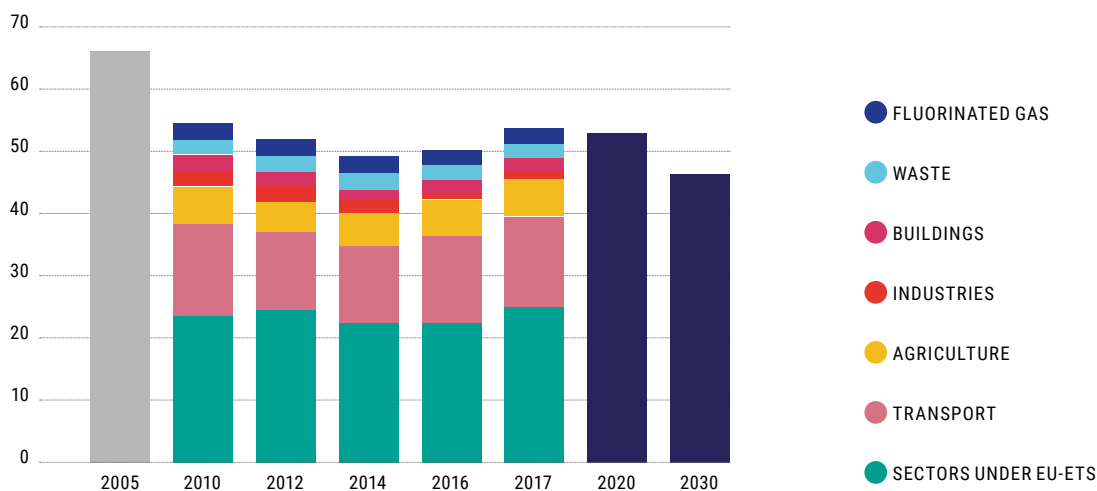
for 53.3% of these diffuse emissions (27.5% of the total) and has been increasing since 2014. Emissions from agriculture in 2017 are stable at 11% of the total, and waste decreased at 4.7% of the total and a decrease of 15.5% between 2010 and 2017. Nevertheless, the significant drop in total emissions is due to the 22.7% decrease in industry, production and electricity cogeneration-related emissions between 2005 and 2017 (from 32 MtCO<sub>2</sub> to 25 MtCO<sub>2</sub>).

### A national leader in renewable energy production

In 2017, [renewable energy represented 38.8% of the region's total energy production](#). In 2019, 54.43% of renewable energy comes from wind power, 31% from solar, photovoltaic and thermodynamic sources combined. In 2011, the world's first thermodynamic power plant was installed near Seville. Andalusia is now the main producer in the country, with 22 power plants and 22.7% of national production, making Spain the world's leading producer. Andalusia also leads in electricity production originating from biomass, mainly from olive and eucalyptus crops. In 2012, the company known as Ence built, with the support of community subsidies, [the largest biomass factory in Spain](#), with a capacity of 50 MW, supplied by its own cellulose production. It provides 400,000 people with green energy.

- The 2020 Programme for Development of Renewable Energy Initiatives "[Andalucía es más](#)", aligned with the [2020 Energy Strategy of Andalusia](#) has 76 measures in 3 aspects for reducing energy consumption in SMEs, housing and public administrations.
- The section on [sustainable building](#) (€180 M) puts in place insulation work as well as the installation of the renewable energy production system for self-consumption. 1,384 solar, photovoltaic or thermal installations for self-consumption have been installed, of which 72% have been installed in private homes ([Interempresas](#), 2019).
- The [section on SMEs](#) (€36.7 M) for financing 25 to 50% of energy projects such as the improvement of interior and exterior lighting, and thermal insulation of housing. Emphasis is also placed on the development of cleaner transport solutions and route optimisation for SMEs with a fleet of at least 5 vehicles.

## ANDALUSIA - GHG EMISSIONS (IN MTCO<sub>2</sub>E)



- Finally, the [section on smart grids](#) plans support for the installation of smart grids in municipalities, the installation of charging stations for electric vehicles, or the renewal of the public transport fleet. For municipalities with a population of less than 20,000, project funding can reach 80%.

### Economy – The voluntary Carbon Offsetting Scheme “SACE” in the process of becoming mandatory

The [Andalusian carbon offsetting scheme](#) (SACE) was implemented by the Environmental Council. It focuses on the voluntary involvement of businesses auto-evaluating their emissions via an IT tool – available to all businesses. This tool categorises 3 emission scopes: direct emissions, those related to energy consumption, and those indirect upstream or downstream of its activity, the transport of raw materials or finished products. Based on the results of the auto-evaluation, the company, with the administration, defines a plan to stick to reducing first and second range emissions.

In the event of failure to implement the plan, companies must set up a project to offset all or part of the unreduced emissions, often forestry or reforestation projects. Since 2009, 98 companies have joined this programme, but no data has been provided yet to assess the effectiveness of this measure.

## ADAPTATION

### FINANCING RESEARCH AND NGOS

[The Andalusian Plan for Adaptation to Climate Change](#), approved in 2010, the second pillar of the PAAC, has been shaped into 4 sub-programmes implemented by various Councils of the Autonomous Community.

The Agriculture, Fishing and Rural Development Council is one of the most active of its kind financing up to 1,051 million euros-worth of projects, including 13 research projects on adaptation of agriculture to climate change in the framework on its 2014-2020 [Rural Development Plan](#). Along with projects on the improvement of water use, research projects mainly focus on the adaptation of main crops in the region with subjects such as: biodiversity with vineyards, [the effect of climate change on the olive tree](#) or the management of almond tree crops.

The Council issued a decree in August 2019 to increase subsidies for projects to adapt forest ecosystems in an area that includes nearly 50% of forest area. For the first time, two organisations ([Arboretum and Produnas](#)), leading adaptation projects, received public funds from the municipality of Marbella. [Arboretum](#) for example, works on the development of urban gardens in Marbella to conserve 131 species of plants, said to be indigenous to the region.