

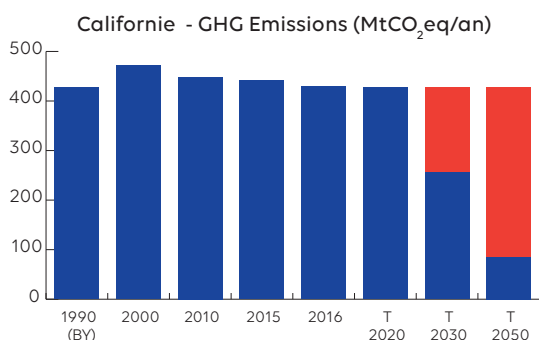


## Results of electricity decarbonisation

California, leader in the United States for climate policy, made a commitment in 2006 to reduce its GHG emissions in 2020 to the level of 1990, i.e. about 15% compared to a “business as usual” scenario. California reached this first milestone in 2016, even though its GDP has continually increased since 2002. Whereas most emissions reductions over the last period came from the decarbonisation of the electricity sector, the transport sector now offers the main potential reduction with a view to achieving the recently adopted 2030 and 2050 targets.

### • A STRONG POLICY IN SUPPORT OF RENEWABLE ENERGY

Since the end of the 1990s, the California State financially supports the development of renewable energy. In 2015, it set, via the [Renewable Portfolio Standard](#) a target of 33% of the electricity consumed in California produced from renewable energy in 2020, 50% in 2030, and in September the target to reach 100% of renewable energy by 2045 (IISD 2018). According to the [California Energy Commission](#), this ratio was already 32% in 2017. In the pursuit of this objective, one of the central public policies is the [Go Solar California](#), plan, initiated in 2007 with a budget of 3.35 billion USD. With various incentives (tax credits, subsidies, guaranteed feed-in tariffs on small installations, and so on) it facilitated the installation of 7.2GW. In 2015, the emissions of the electricity sector were 29% lower than those of 1990.



### • A RAPIDLY GROWING CARBON QUOTA EXCHANGE SYSTEM

A major tool in the fight against emissions, the Californian carbon quota exchange system launched in 2013 is at present the second largest in the world (I4CE 2018). It is also coupled with the Quebec exchange system since 2014. It applies to large power generation companies, fossil energy distributors, and

industrial installations, i.e. a total of 450 companies accounting for 85% of Californian emissions (C2ES). The quotas, distributed according to a method combining free allocation and auctions, are planned to decrease by 3% per year on average between 2015 and 2020, and more quickly over the 2021 - 2030 period in order to guarantee a minimum price. At present, it is difficult to assess the real impact of the Californian carbon market (Berkeley 2018).

### • THE CHALLENGE OF THE ELECTRIC CAR

The targets set by California require a significant decarbonisation of the transport sector, whose emissions are currently increasing. They account for 41% of the State's emissions compared with 24% in the whole of the United States. The strategy pursued is based mainly on the decarbonisation of individual mobility. The State has furthermore joined the “Zero Emission Véhicule” initiative within the framework of the Under2 Coalition, which targets 100% of so-called “zero emissions” vehicles by 2050. A central initiative, the “Advanced Clean Cars Program”, set up in 2012, sets maximum levels for GHG emissions and local pollutants, and obliges vehicle manufacturers to produce a quota of electric vehicles. The “Low Carbon Fuel Standard” programme, adopted in 2009 and renewed in 2015, aims at reducing the carbon intensity of fuels by 10% between 2009 and 2020. California is also leading the way in terms of public support to the development of electric mobility. A [plan for development of the sector](#), voted in May 2018, includes a public investment of 768 million USD in the financing of charging points to enable the commercialisation of 5 million electric vehicles by 2030.