This profile assesses the European Union’s past, present and indications of future performance towards a low-carbon economy by evaluating emissions, decarbonisation, climate policy performance and climate finance. The profile summarises the respective findings from, amongst others, the Climate Change Performance Index (CCPI, operated by Germanwatch and Climate Action Network Europe), the Climate Action Tracker (CAT, operated by Climate Analytics, NewClimate Institute, Ecofys and the Potsdam Institute for Climate Impact Research), and analyses from the Overseas Development Institute (ODI).

**Human Development Index**

- **N/A**
- **0.82**
- **G20 average**

**Share of global GHG emissions**

- **8.9%**
- **9.3**
- **8.7**
- **G20 average**

**GHG emissions per capita (tCO2e/cap)**

**Share of global GDP**

- **17%**
- **$28,809**
- **$15,071**
- **G20 average**

**GDP per capita**

Source: UNDP, data for 2015

Source: World Bank Indicators, data for 2012

Source: IEA, data for 2013

Over the assessment period the European Union’s greenhouse gas (GHG) emissions have declined from about 5,600 MtCO2e to about 4,500 MtCO2e. Future projections assume this reduction could continue until 2030. In 2012, carbon dioxide (CO2) accounted for approximately three quarters of the EU’s total GHG emissions. Energy-related CO2 per capita emission declined notably since 1996, but are still relatively high compared to other G20 countries.
The energy intensity of the EU’s economy (TPES/GDP) has gradually fallen and is already far below the G20 average.

In the European Union there has been an observable trend towards fewer emissions per primary energy supply (CO₂/TPES). It started just above the level of the G20 average and continuously dropped down to about 49 tCO₂ per TJ, below the G20 average. While it is expected that the energy sector’s carbon intensity will drop further by 2030, it would still exceed the minimum value for the 2°C compatible benchmark corridor.

In the European Union, the share of coal accounted for 27% in 1990 but has since decreased. In 2012 coal accounted for 18% of the total primary energy supply, which is nearly half of the G20 average share. Projections assume this development will continue and be on a 2°C-compatible pathway, even though it will still be above the minimum value of the benchmark corridor in 2030.
The EU's electricity demand per capita has been rising since 1990 showing the same upward trend as the G20 average. However, at around 5500 kWh per capita in 2012, the EU's electricity demand is far above the G20 average, and is expected to continue rising until 2030.

The emissions intensity of the EU's electricity has dropped by a third since 1990. Compared to other G20 member countries, current levels are relatively good and can be expected to drop further.
Under its INDC, on 6 March 2015 the EU proposed a binding, economy-wide target to cut domestic greenhouse gas emissions by at least 40% below 1990 levels in 2030. No individual EU member state has its own INDC.

The Climate Action Tracker (CAT) rates the EU emissions target as “medium”, meaning the INDC is inconsistent with limiting warming below 2°C. It would require other countries to make a comparably greater effort, and much deeper emissions reductions.

The overall level of GHG emissions reductions proposed in the EU28 INDC does not fall within the range of approaches for fair and equitable emission reductions. Current policies are projected to reduce domestic emissions by 23–35% below 1990 levels in 2030, and do not put the EU on a trajectory towards meeting either its 2030 or 2050 targets. The EU’s Emissions Trading Scheme is an important instrument to achieve its 2020 and 2030 targets. However, an accumulated surplus of emissions allowances could dilute the 40% GHG target by 7% in 2030. It is therefore important that the EU creates a robust market reserve for eliminating that surplus, to keep in line with the 40% GHG target.
The European Union as a whole is not covered by the investment attractiveness indices.

Sources: Allianz Energy and Climate Monitor and RECAI reports

The Allianz Energy & Climate Monitor ranks G20 member states on their relative fitness as potential investment destinations for building low-carbon electricity infrastructure. The investment attractiveness of a country is assessed through four categories: Policy adequacy, Policy reliability of sustained support, Market absorption capacity and the National investment conditions. The Renewable Energy Country Attractiveness Index (RECAI) produces score and rankings for countries' attractiveness based on Macro drivers, Energy market drivers and Technology-specific drivers which together compress a set of 5 drivers, 16 parameters and over 50 datasets.

Historical investments in renewable energy and investment gap

Not assessed

Carbon pricing mechanisms

Emissions Trading Schemes (ETS)

An ETS caps the total level of GHG emissions and allows industries to trade allowances based on their marginal abatement cost. By creating a supply and demand for allowances, an ETS establishes a market price for GHG emissions.

Carbon Tax

A Carbon tax directly sets a price on carbon by defining a tax rate on GHG emissions or – more commonly – on the carbon content of fossil fuels. Unlike an ETS, a carbon tax is a price-based instrument that pre-defines the carbon price, but not the emissions reduction outcome of a carbon tax.

Sources: World Bank and Ecolys, 2016; other national sources

Fossil fuel subsidies

Not assessed

Public climate finance

EU is not listed in Annex II of the UNFCCC, and it is therefore not formally obliged to provide climate finance. While climate-related spending by multilateral development banks may exist, it has not been included in this report.