

ASSESSING CLIMATE PROTECTION PERFORMANCE: G20 COUNTRY PROFILE

United Kingdom

This Country Profile assesses the United Kingdom's past and present actions to help mitigate climate change, and its Intended Nationally Determined Contribution (INDC) towards future global action. The profile summarises the respective findings of the Climate Change Performance Index (CCPI)¹ and Climate Action Tracker (CAT)².



COUNTRY CHARACTERISTICS

KEY INDICATORS*	UK	G20
Population [million]	63	4,587
GDP per capita (PPP) [US\$]	32,473	22,508
Share of global GHG emissions	1.2%	74.2%
Share of global GDP	2.5%	80.3%
Share of global population	0.9%	64.7%
GHG per capita [t CO ₂ e/cap]	9.1	11.0
Energy intensity of the economy (TPES/GDP [MJ/US\$])	3.9	6.9
Carbon intensity of energy supply (CO ₂ /TPES [t CO ₂ /TJ])	56.8	56.6
Carbon intensity of the economy (CO ₂ /GDP [kg CO ₂ /US\$])	0.22	0.39
Share of fossil fuels in primary energy supply	85.2%	83.4%
Share of coal in electricity production	40.0%	35.7%
Share of renewables in primary energy supply	4.4%	12.3%

*year 2012 (unless stated otherwise)

**year 2010

GDP = gross domestic product

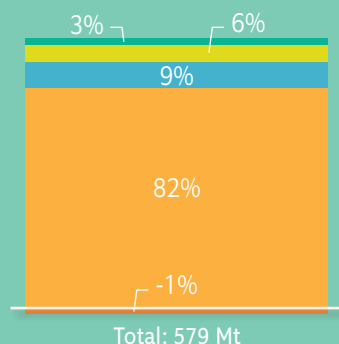
GHG = greenhouse gas emissions (net emissions including sinks from agriculture, forestry, and other land uses)

TPES = total primary energy supply

PPP = purchasing power parity in prices of 2005

EMISSIONS AND EMISSIONS TRENDS

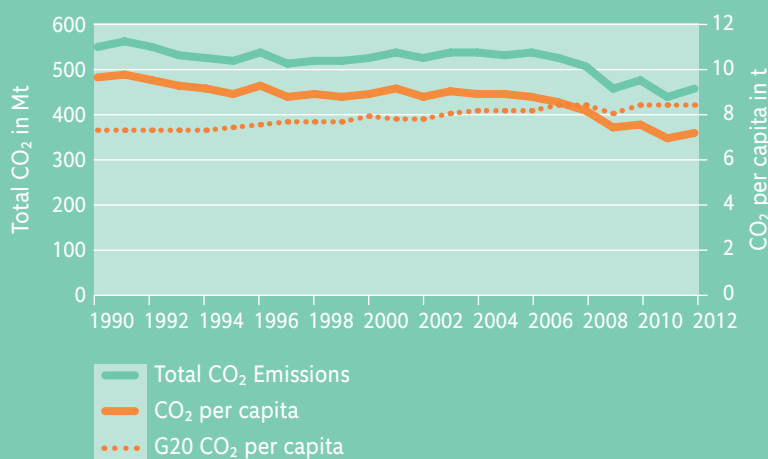
COMPOSITION OF GHG – UK 2012



F-Gases
N₂O**
CH₄**

CO₂**
CO₂ from LULUCF*
* from Energy & Industry
** including LULUCF

ENERGY-RELATED CO₂-EMISSIONS – UK



Source: UNFCCC 2015

Source: IEA 2014

Carbon dioxide (CO₂) accounted for some 82% of the UK's total 579Mt greenhouse gas (GHG) emissions in 2012. Total energy-related CO₂ emissions and per capita emissions have been slowly but steadily declining. Since 2009, per capita emissions

have fallen below the G20 average. Compared to other G20 countries, the CCPI evaluates the UK's emissions level performance as medium, with a strong positive trend in the last five years.

CCPI EVALUATION OF THE UK'S EMISSIONS



Source: CCPI 2015

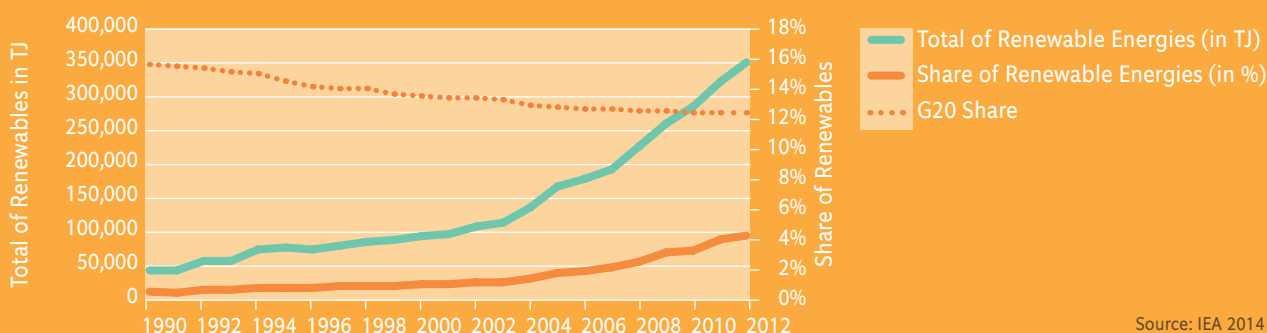
DECARBONISATION

Decarbonisation of the global economy will be a crucial element for staying below the 2°C threshold. Two important steps towards achieving such decarboni-

sation are a shift from fossil fuels to renewable energy sources, and a reduction in carbon and energy intensity³.

RENEWABLE ENERGY

RENEWABLE ENERGY IN THE UK



Source: IEA 2014

Approximately 30% of the UK's energy sector is still coal-based. Until the turn of the millennium, renewable energy accounted for 1% of total energy supply, which made the UK one of the worst G20 performers

for renewables. In 2012, the share of renewables was about one third of the G20 average, reflected in a very poor performance ranking by the CCPI, but with a positive trend.

CCPI EVALUATION OF THE UK'S RENEWABLE ENERGY



Source: CCPI 2015

ENERGY- AND CARBON INTENSITY

The measurement of carbon and energy intensity uses macroeconomic data. A country's progress towards decarbonisation is indicated by decoupling of its GDP growth from growth in carbon and energy

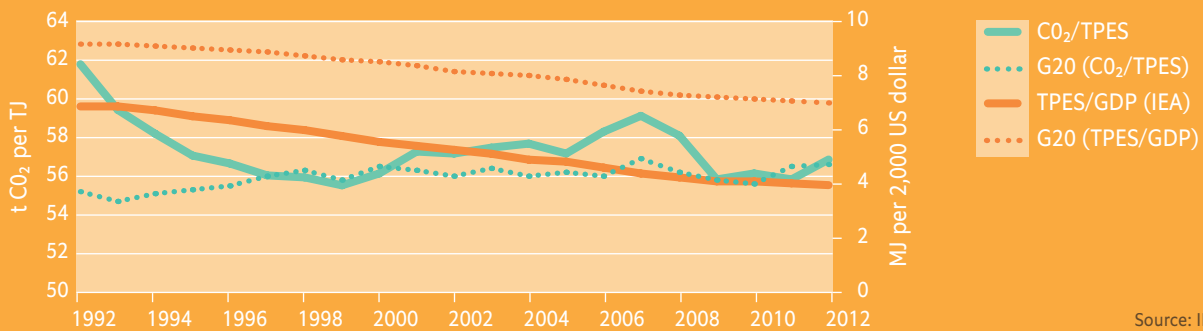
intensity. The latter are measured as CO₂ emissions per unit of Primary Energy Supply (CO₂/TPES) and Primary Energy Supply per unit of GDP (TPES/GDP) respectively.

¹ Climate Change Performance Index is jointly published by Germanwatch and Climate Action Network Europe, a coalition of over 120 member organizations. The Index is 80% based on objective indicators of emissions trend and level, renewable energies and energy efficiency and 20% on national and international climate policy assessments by more than 300 experts from the respective countries. www.germanwatch.org/en/ccpi

² Climate Action Tracker is an independent scientific analysis produced by four research organizations: Climate Analytics, Ecofys, the Potsdam Institute for Climate Impact Studies and the NewClimate Institute. www.climateactiontracker.org

³ Another indicator is energy efficiency. However, energy efficiency is complex to measure, requiring a sector by sector analysis, where comparable data sources across G20 countries are not available at present.

ENERGY- AND CARBON INTENSITY IN THE UK



Source: IEA 2014

While carbon intensity of energy supply (CO₂/TPES) has fluctuated, the energy intensity of the UK's economy (TPES/GDP) has declined steadily. The country's

energy intensity is about two thirds of the G20 average. The CCPI ranks the UK's energy and carbon intensity as good.

CCPI EVALUATION OF THE UK'S ENERGY AND CARBON INTENSITY



Source: CCPI 2015

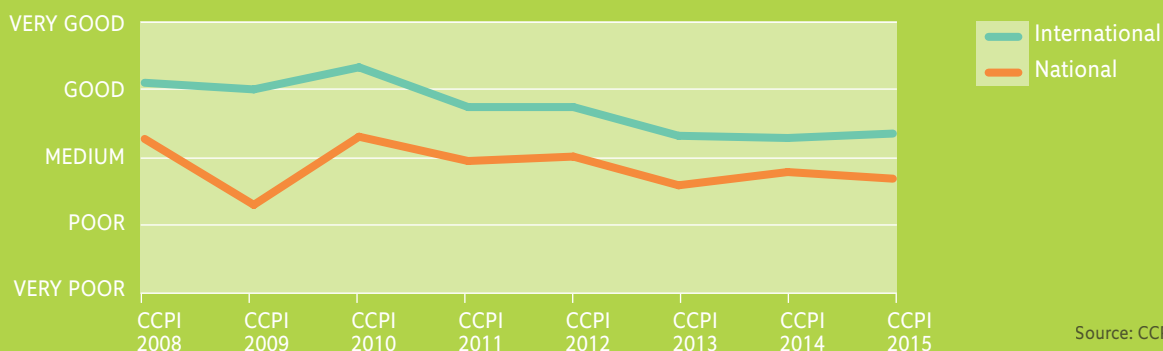
CLIMATE POLICY PERFORMANCE

EVALUATION OF RECENT CLIMATE POLICY

The CCPI evaluates a country's performance in national and international climate policy through feedback from national energy and climate experts.

The experts assess the country's performance in international negotiations, national policy making and in the implementation of climate policies.

THE UK'S CLIMATE POLICY



Source: CCPI 2008–2015

Experts have noted deterioration in the UK's international climate policy performance, from good to medium. Country experts criticise a lack of leader-

ship within the EU. Nationally, they consider that the UK is still on track to meet its short-term goals, and its longer term decarbonisation trajectory.

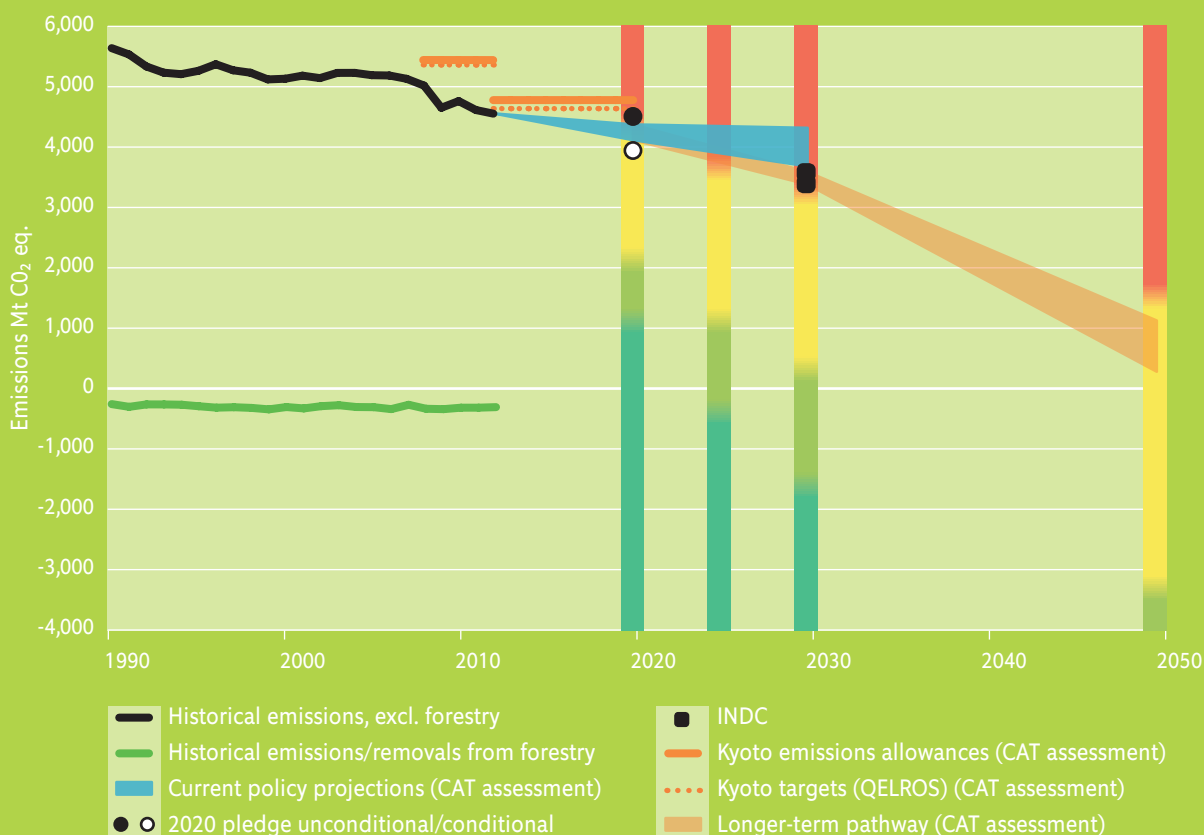
CCPI EVALUATION OF THE UK'S CLIMATE POLICY



Source: CCPI 2015

COMPATIBILITY OF NATIONAL CLIMATE TARGETS WITH 2°C

As an EU member state, the UK did not submit its own Intended Nationally Determined Contribution (INDC) or emissions reduction target towards COP21.



Source: © www.climateactiontracker.org/ Climate Analytics/Ecofys/ NewClimate/PIK

Under its INDC, the EU proposed on 6 March 2015 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, but some countries, such as Germany, may have more ambitious, domestic targets.

The Climate Action Tracker (CAT) rates the EU emissions target as “Medium”, meaning that the INDC is not consistent 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 INDC is not yet sufficient to fall within the range of approaches for fair and equitable emission reductions by the EU28. Current policies are projected to reduce domestic emissions by 23–35% below 1990 levels in 2030, and so do not yet put the EU on a trajectory towards meeting either its 2030 or 2050 targets. The EU’s Emissions Trading Scheme is the bloc’s most important instrument to achieve its 2020 and 2030 emissions reduction 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.

CAT EVALUATION OF THE EU’S INTENDED NATIONALLY DETERMINED CONTRIBUTIONS (INDC)

