

ASSESSING CLIMATE PROTECTION PERFORMANCE:
G20 COUNTRY PROFILE

USA

This Country Profile assesses the USA'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)ⁱ and Climate Action Tracker (CAT)ⁱⁱ.



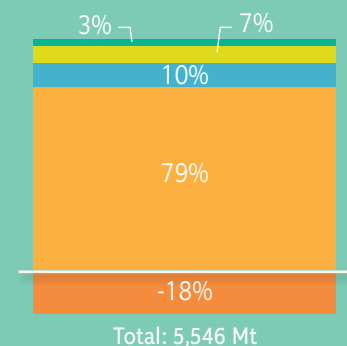
COUNTRY CHARACTERISTICS

KEY INDICATORS*	USA	G20
Population [million]	314	4,587
GDP per capita (PPP) [US\$]	45,283	14,505
Share of global GHG emissions	13.5%	74.2%
Share of global GDP	17.2%	80.3%
Share of global population	4.5%	64.7%
GHG per capita [t CO ₂ e/cap]	17.6	7.2
Energy intensity of the economy (TPES/GDP [MJ/US\$])	6.6	6.6
Carbon intensity of energy supply (CO ₂ /TPES [t CO ₂ /TJ])	56.6	63.1
Carbon intensity of the economy (CO ₂ /GDP [kg CO ₂ /US\$])	0.36	0.42
Share of fossil fuels in primary energy supply	83.7%	83.4%
Share of coal in electricity production	38.5%	35.7%
Share of renewables in primary energy supply	6.0%	11.1%

*year 2012 (unless stated otherwise)
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

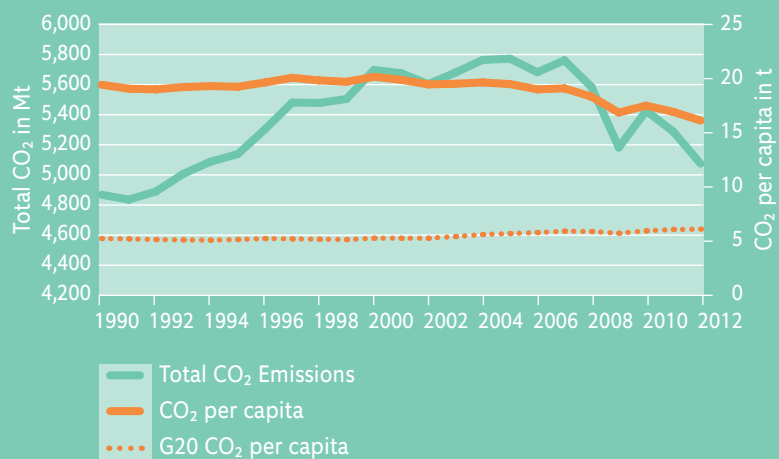
EMISSIONS AND EMISSIONS TRENDS

COMPOSITION OF GHG – USA 2012



■ F-Gases
■ N₂O**
■ CH₄**
■ CO₂**
■ CO₂ from LULUCF*
 * from Energy & Industry
 ** including LULUCF

ENERGY-RELATED CO₂-EMISSIONS – USA



Source: UNFCCC 2015

Source: IEA 2014

Carbon dioxide (CO₂) accounted for some 79% of the USA's greenhouse gas (GHG) emissions in 2012. In the land use and forest sector, the country has negative emissions. The total amount of energy-related CO₂ emissions makes the United States the second biggest emitter, among G20 countries and globally.

The USA's per capita emissions peaked in 2000 and since then have declined gradually. In 2009, Australia passed the USA as the biggest per capita emitter within the G20. In comparison with other G20 countries, the CCPI ranks the US emissions level as a very poor performer, with a positive trend.

CCPI EVALUATION OF THE USA'S EMISSIONS



Source: CCPI 2015

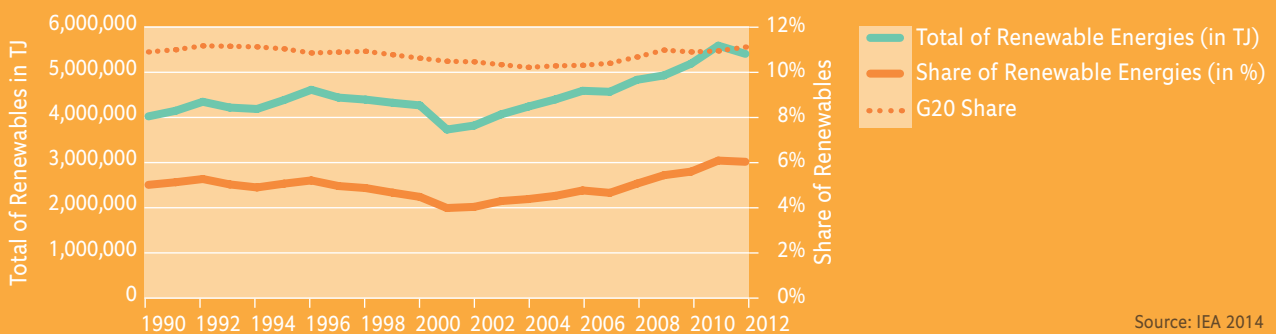
DECARBONISATION

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

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

RENEWABLE ENERGY

RENEWABLE ENERGY IN THE USA



Source: IEA 2014

In 2012, the United States had a relatively low share of energy from renewable sources, at 6%. The major energy sources remain coal, natural gas and nuclear. However, both absolute renewable energy produc-

tion and its share in the energy mix have risen since 2001. The CCPI ranks the USA as very poor with a positive trend.

CCPI EVALUATION OF THE USA'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

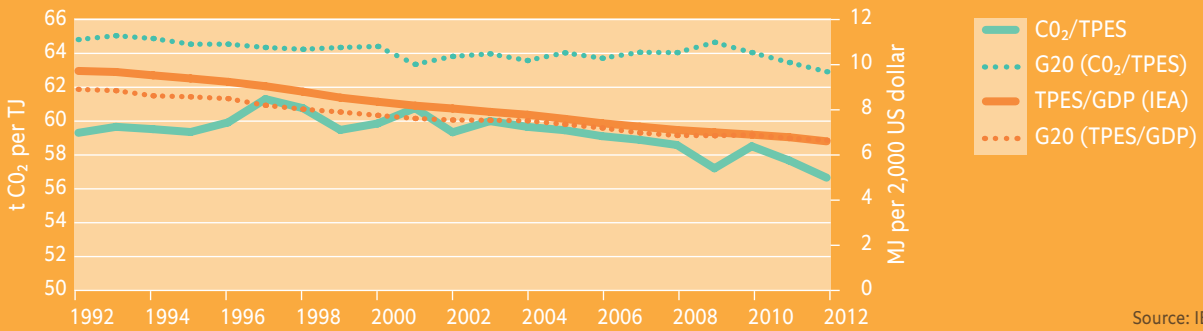
intensity. The latter are measured as CO₂ emissions per unit of Primary Energy Supply (CO₂/TPES) and Primary Energy Supply per unit of GDP (TPES/GDP) respectively.

i 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

ii 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

iii 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 USA



Source: IEA 2014

The US carbon intensity (CO₂/TPES) of energy supply is steadily falling. The energy intensity of the country's economy (TPES/GDP) has developed in line with the G20 average and is declining. The curves indicate a decoupling of CO₂ emissions from energy produc-

tion, and decoupling of growth in energy supply from GDP growth. The CCPI ranks the country's energy and carbon intensity as poor with a positive trend.

CCPI EVALUATION OF THE USA'S ENERGY AND CARBON INTENSITY



Source: CCPI 2015

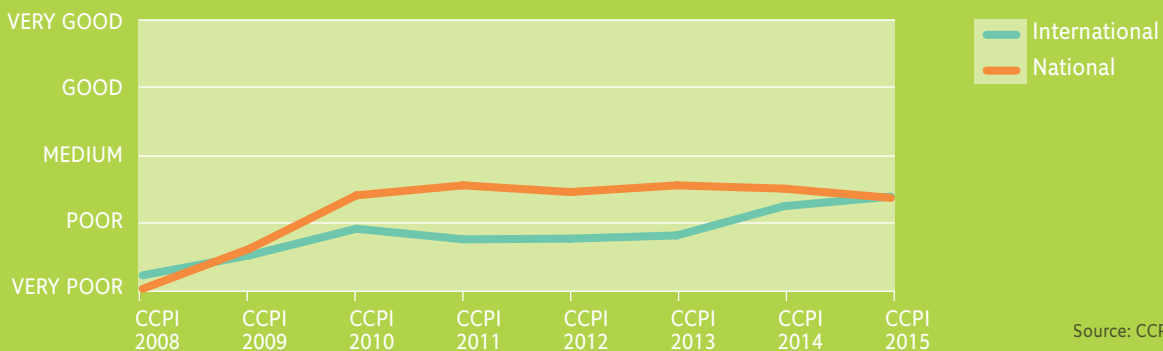
CLIMATE POLICY PERFORMANCE

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.

USA'S CLIMATE POLICY



Source: CCPI 2008-2015

Experts rank both national and international climate policy performance as poor, with improvements since 2008. National climate policy performance has

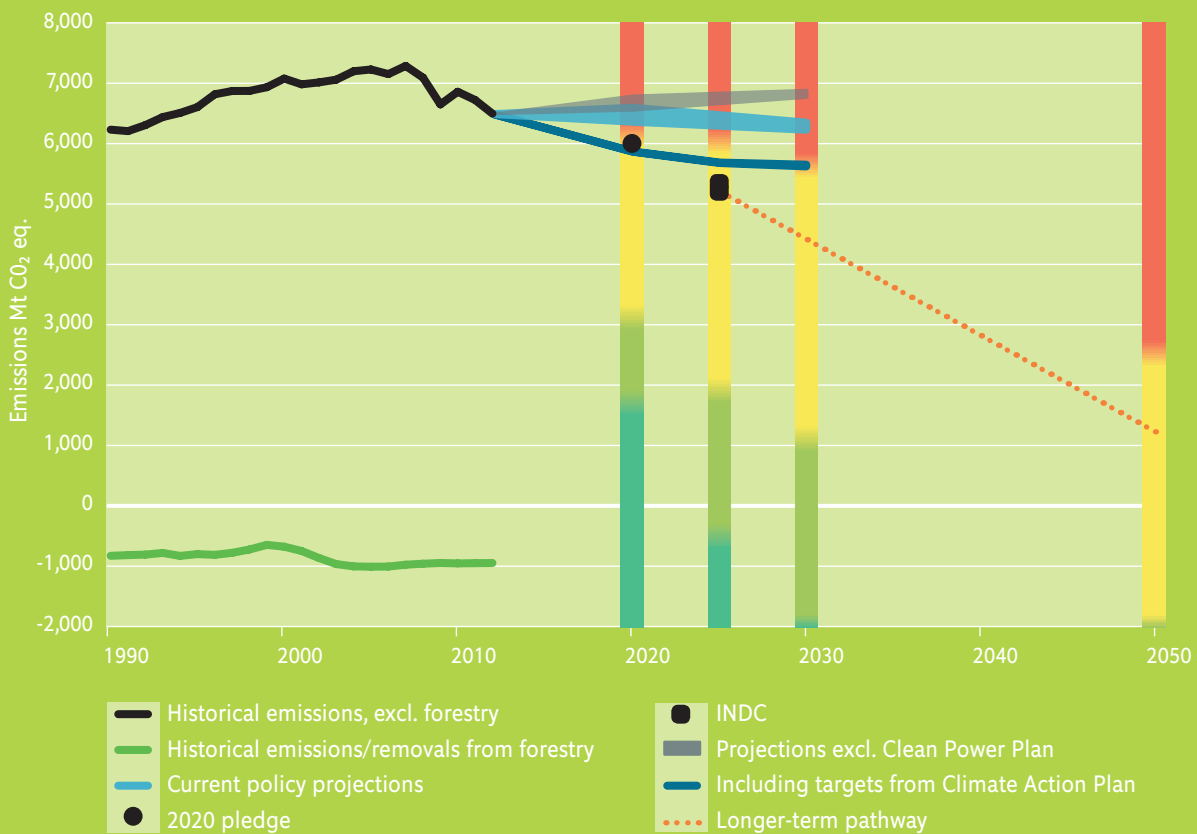
remained on a constant level since 2010. Efforts in climate diplomacy have led to a slightly improved international policy performance since 2013.

CCPI EVALUATION OF THE USA'S CLIMATE POLICY



Source: CCPI 2015

COMPATIBILITY OF NATIONAL CLIMATE TARGETS WITH 2°C



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

The USA's Intended Nationally Determined Contribution (INDC) was submitted on 31 March 2015 and commits to reduce net GHG emissions by 26–28% below 2005 in 2025, including Land Use, Land Use Change and Forestry (LULUCF). That is equivalent to a reduction of 24–31% below 2005 levels, or 12–19% below 1990 levels, after excluding LULUCF. Based on this target, and taking into account the effect of LULUCF accounting, CAT rates the US “medium”. The target is not yet consistent with limiting warming to below 2°C, unless other countries make much deeper reductions and comparably greater effort than the USA.

Current US implemented policies fall short of the INDC target, leading to emissions which are 28–31% above the INDC target level for 2025. However, planned policies, such as the Climate Action Plan, would bring the USA close to meeting its INDC, if they are fully implemented. Such planned policies would lead to emissions 9% above the INDC. The USA needs to implement further policies to achieve its INDC for 2025. For meeting the pledge for 2020, the additional measures outlined by the Obama government in the “President’s Climate Action Plan” in June 2013 would be sufficient.

CAT EVALUATION OF THE USA'S INTENDED NATIONALLY DETERMINED CONTRIBUTIONS (INDC)

