

ASSESSING CLIMATE PROTECTION PERFORMANCE:
G20 COUNTRY PROFILE

Australia

This Country Profile assesses Australia'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.



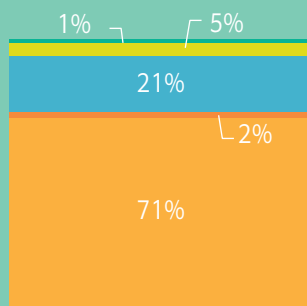
COUNTRY CHARACTERISTICS

KEY INDICATORS*	AUSTRALIA	G20
Population [million]	23	4,587
GDP per capita (PPP) [US\$]	37,718	14,505
Share of global GHG emissions	1.2%	74.2%
Share of global GDP	1.1%	80.3%
Share of global population	0.3%	64.7%
GHG per capita [t CO ₂ e/cap]	24.4	7.2
Energy intensity of the economy (TPES/GDP [MJ/US\$])	6.2	6.6
Carbon intensity of energy supply (CO ₂ /TPES [t CO ₂ /TJ])	71.9	63.1
Carbon intensity of the economy (CO ₂ /GDP [kg CO ₂ /US\$])	0.44	0.42
Share of fossil fuels in primary energy supply	94.4%	83.4%
Share of coal in electricity production	68.8%	35.7%
Share of renewables in primary energy supply	5.5%	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

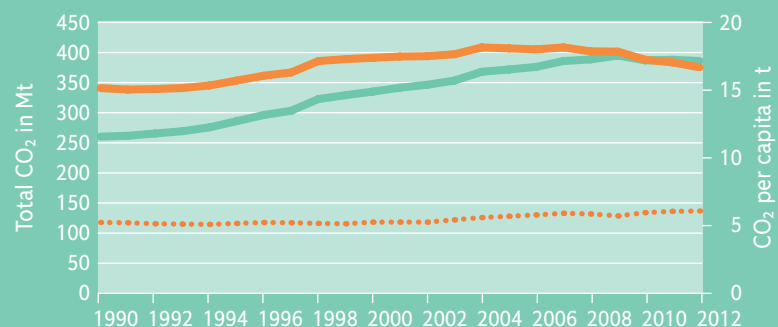
COMPOSITION OF GHG – AUSTRALIA 2012



■ F-Gases
■ N₂O**
■ CH₄**
■ CO₂ from LULUCF
■ CO₂ excl. LULUCF*

* from Energy & Industry
** including LULUCF

ENERGY-RELATED CO₂-EMISSIONS – AUSTRALIA



— Total CO₂ Emissions
— CO₂ per capita
... G20 CO₂ per capita

In Australia, carbon dioxide (CO₂) accounts for about three quarters of annual greenhouse gas (GHG) emissions, and almost exclusively from the energy sector. Methane emissions (CH₄) are very high compared with other G20 countries, at about 21% of the total. The main sources of methane emissions are agriculture and fugitive emissions, e.g. from coal mining.

Until 2008, annual energy-related CO₂ emissions and per capita CO₂ emissions were rising steadily. Since then, emissions have gradually fallen. Australia's emissions level is among the worst performers, compared with both G20 members and countries worldwide. CCPI ranks Australia's emissions level as very poor. There is not a clear trend in emissions.

CCPI EVALUATION OF AUSTRALIA'S EMISSIONS



Source: CCPI 2015

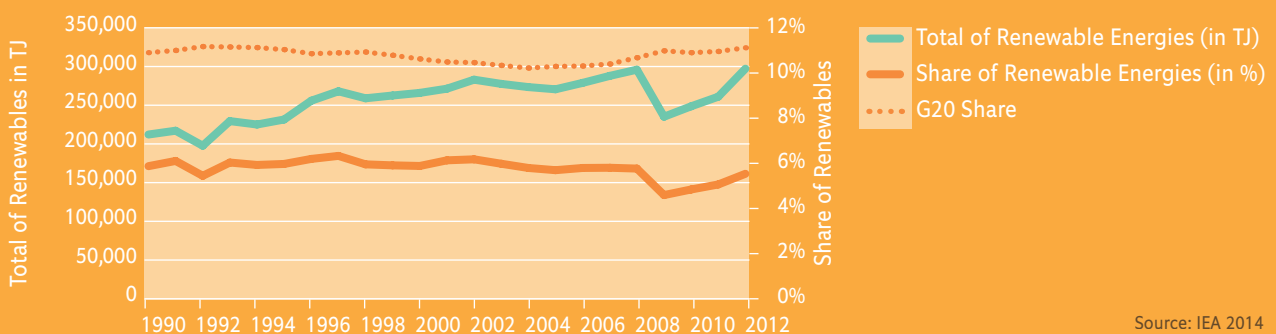
DECARBONISATION

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 intensityⁱⁱⁱ.

RENEWABLE ENERGY

RENEWABLE ENERGY IN AUSTRALIA



Source: IEA 2014

The total supply of renewable energy in Australia has seen a gradual increase in recent years. The share of renewables is well below the G20 average, however, and has remained constant at a level of 5–6%. In other words, renewable energy supply has only

grown in line with overall energy production. The CCPI ranks Australia's level of renewables as relatively poor, with no clear positive or negative trend in the last five years.

CCPI EVALUATION OF AUSTRALIA'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

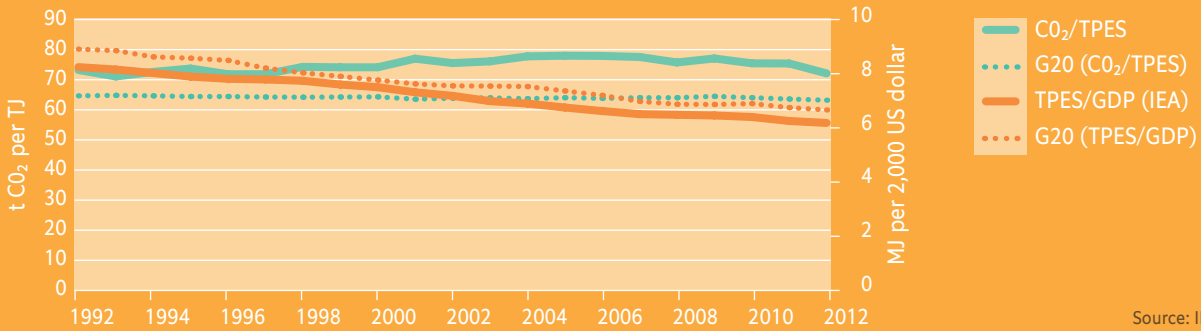
intensity. The latter are measured as CO₂ emissions per unit of Primary Energy Supply (CO₂/TPES) and Primary Energy Supply per unit of GDP (TPES/GDP) respectively.

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 AUSTRALIA



Source: IEA 2014

In Australia, the energy intensity of the economy (TPES/GDP) fell gradually from 1990 to 2012. The carbon intensity of energy supply (CO₂/TPES) increased until 2007, and has since gradually declined. While the energy intensity of the economy is below

the G20 average, the carbon intensity of energy supply is above average. The CCPI ranks the country's energy and carbon intensity as very poor compared to other G20 countries, with a slightly positive trend.

CCPI EVALUATION OF AUSTRALIA'S ENERGY AND CARBON INTENSITY



Source: CCPI 2015

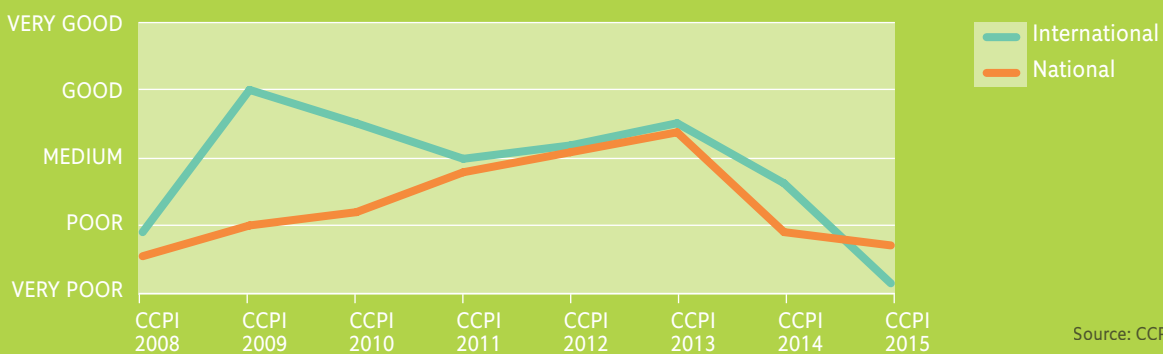
CLIMATE POLICY PERFORMANCE

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.

AUSTRALIA'S CLIMATE POLICY



Source: CCPI 2008-2015

Historically, the strength of Australia's commitment to climate policy has varied hugely. Starting from a very poor performance in international climate policy, Australia was evaluated as a relatively good performer by CCPI country experts in 2009, when the country signed the Kyoto Protocol. Since then, the new

government has reversed many climate protection policies, for example abandoning a planned emissions trading scheme. Australia received a very poor rating for climate policy performance from CCPI experts in its latest edition.

CCPI EVALUATION OF AUSTRALIA'S CLIMATE POLICY



Source: CCPI 2015

COMPATIBILITY OF NATIONAL CLIMATE TARGETS WITH 2°C



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

Australia submitted its Intended Nationally Determined Contribution (INDC) on 11 August 2015. The Climate Action Tracker rates as “inadequate” Australia’s INDC 2030 target to reduce greenhouse gas (GHG) emissions by 26–28% from 2005 levels by 2030, including Land Use, Land Use Change and Forestry (LULUCF). If all governments showed similarly low ambition, global average warming would likely exceed 3–4°C. Australia’s target for 2030 is close to its GHG emissions in 1990, ranging from +5% to -5% compared with 1990 levels, after excluding LULUCF.

With currently implemented policy measures, Australia’s emissions are on course to rise to more than 61% above 1990 levels by 2030, which is equivalent to an increase of around 27% above 2005 levels. To meet its target, Australia will have to decrease its emissions by an average annual rate of 2% until 2030. Instead, under current policies, emissions are on course to rise by an average rate of 1.5% a year. Australia reserves the right to adjust its target, which adds an unusually high level of uncertainty.

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

