

BROWN TO GREEN:

THE G20 TRANSITION TO A LOW-CARBON ECONOMY | 2018

AUSTRALIA

GREENHOUSE GAS (GHG) EMISSIONS
(INCL. FORESTRY) PER CAPITA
(tCO₂e/capita)



Data from 2015 | Source: PRIMAP 2018



The gap:

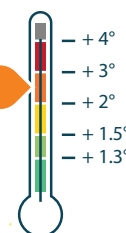
Is Australia on track to stay below the Paris Agreement temperature limit?

Based on implemented policies, Australia's **GHG emissions** are expected to rise to 548 MtCO₂e by 2030 (excl. forestry). This emission pathway is not compatible with the Paris Agreement.¹

Australia's **NDC** is not consistent with the Paris Agreement's temperature limit but would lead to a warming of between 2°C and 3°C.²

Australia's **policies** are failing to address the need for structural change to help achieve the necessary emissions reductions. Effective policies are missing in every sector.³

Current NDC²



Source: CAT 2018

Recent developments:

What has happened since the Paris conference?



The current government does not intend to introduce any policy to achieve emissions reductions in the energy sector. Instead it is discussing subsidising fossil fuel power generation.



The government has not been able to agree on establishing emissions standards for light motor vehicles, which are being considered by a Ministerial Forum.

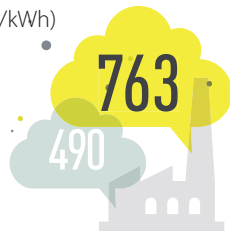


On the subnational level, climate action is more visible. For example, the Australian Capital Territory has set a nation-leading target to achieve net zero GHG emissions by 2045 and Victoria aims to reach net zero GHG emissions by 2050.

Brown and green performance:

Where does Australia lead or lag compared to G20 countries?

EMISSIONS INTENSITY OF THE POWER SECTOR
(gCO₂/kWh)



G20 average

Data from 2016 | Source: Enerdata 2018

TRANSPORT EMISSIONS PER CAPITA
(tCO₂/capita)



G20 average

Data from 2017 | Source: Enerdata 2018

CARBON INTENSITY OF THE ENERGY SECTOR

Tonnes of CO₂ per unit of total primary energy supply (tCO₂/TJ)



G20 average: 59

Data from 2017 | Source: Enerdata 2018

This country profile is part of the **Brown to Green 2018** report. The full report and other G20 country profiles can be downloaded at: <http://www.climate-transparency.org/g20-climate-performance/g20report2018>

BACKGROUND INDICATORS: AUSTRALIA



GDP PER CAPITA⁴
(PPP US\$ const. 2011, international)



Source: World Bank 2017

HUMAN DEVELOPMENT INDEX⁵



Data from 2017 | Source: UNDP 2018

AUSTRALIA'S EXPOSURE TO CLIMATE IMPACTS⁶

This indicator shows the extent to which human society and its supporting sectors are affected by the future changing climate conditions based on an approximately 2°C scenario. This sectoral exposure will be even higher given that the efforts depicted in current NDCs will lead to an approximately 3°C scenario.



FOOD



Projected climate impacts on cereal yields



Projected increase of food demand due to population growth



WATER



Projected climate impacts on annual run-off



Projected climate impacts on annual groundwater recharge



HEALTH



Projected climate impacts on a spread of malnutrition and diarrhoeal diseases



Projected climate impacts on spread of vector-borne diseases



ECOSYSTEM SERVICE



Projected climate impacts on biomes occupying the countries



Projected climate impacts on marine biodiversity



HUMAN HABITAT



Projected climate impacts on frequency of high temperature periods



Projected climate impacts on frequency and severity of floods



INFRASTRUCTURE



Projected climate impacts on hydropower generation capacity



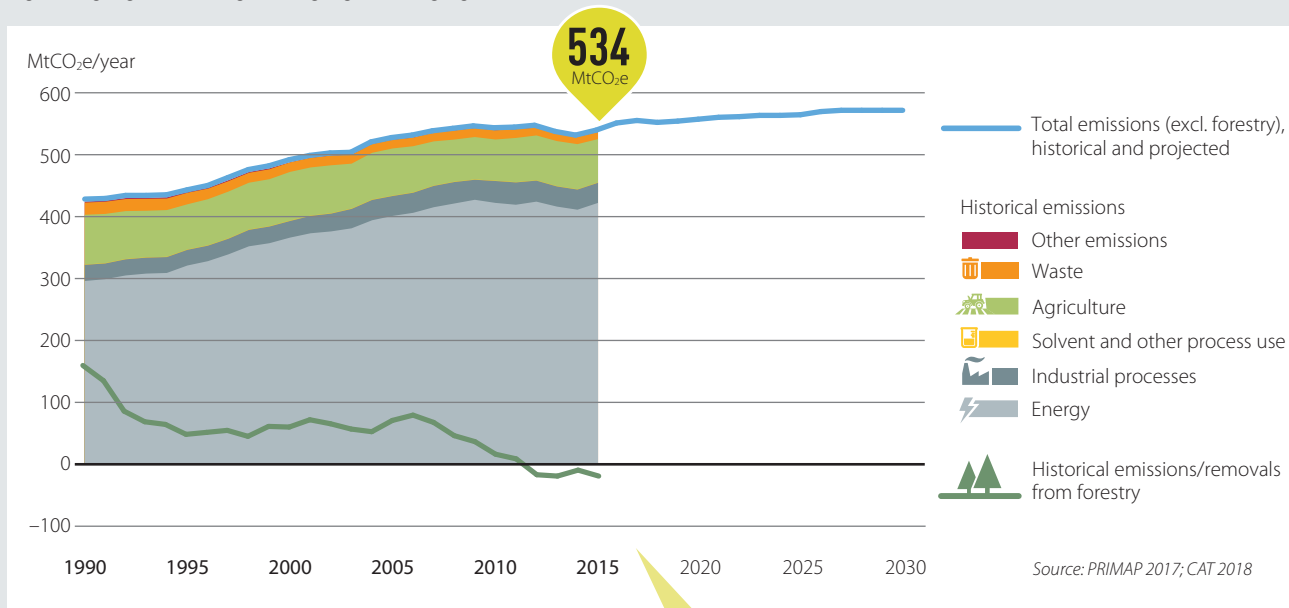
Proportion of coastline impacted by sea level rise



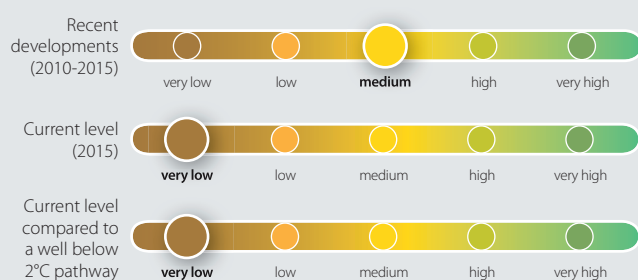
Own composition based on ND-GAIN 2017 (based on data for 2016)

GREENHOUSE GAS (GHG) EMISSIONS AUSTRALIA

TOTAL GHG EMISSIONS ACROSS SECTORS⁷

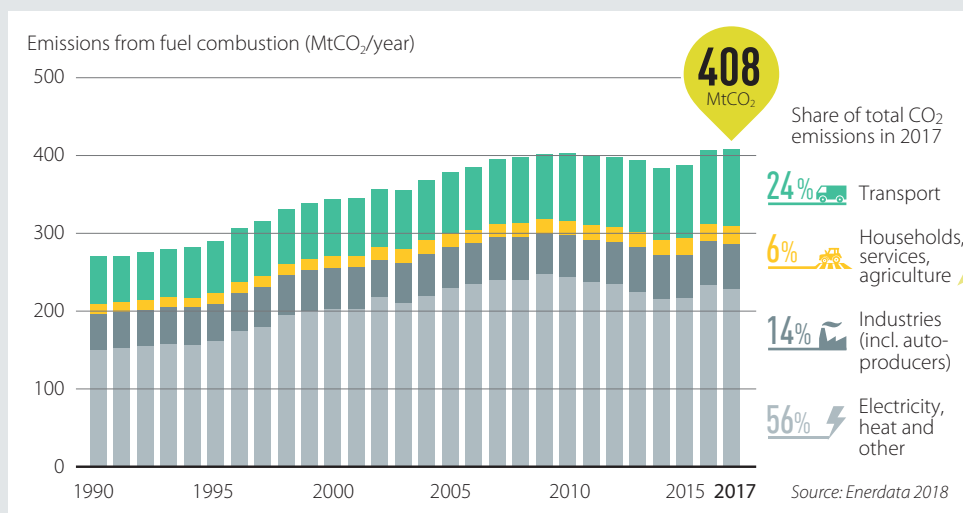


CCPI PERFORMANCE RATING OF GHG EMISSIONS PER CAPITA⁸



Australia's emissions increased by 27% between 1990 and 2015 and are expected to keep growing towards 2030. The energy sector is by far the largest contributor to overall emissions.

ENERGY-RELATED CO₂ EMISSIONS⁹



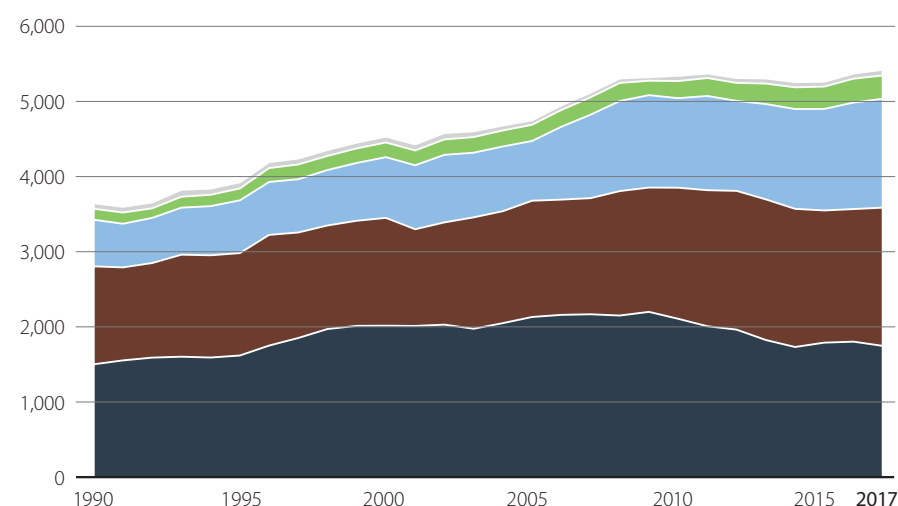
The largest driver for overall GHG emissions in Australia is CO₂ emissions from energy, which increased by 3% (2012–2017). Electricity and heat generation, and transport make up the largest share.

DECARBONISATION

AUSTRALIA

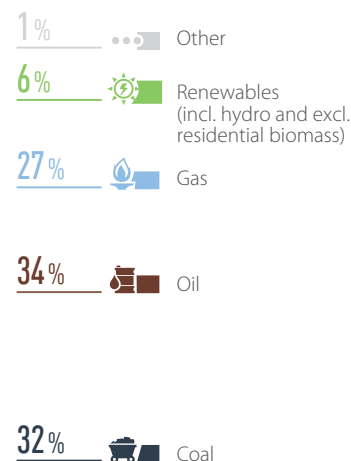
ENERGY MIX¹⁰

Total primary energy supply (PJ)



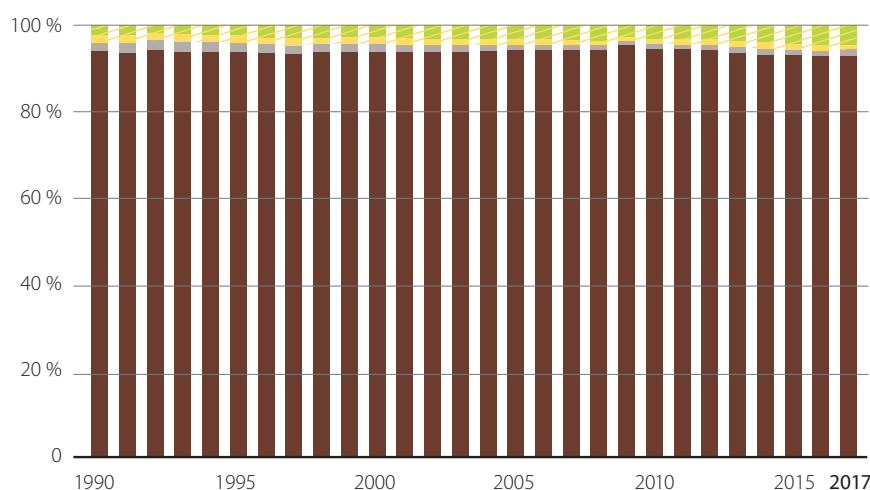
Source: Enerdata 2018

Share in 2017

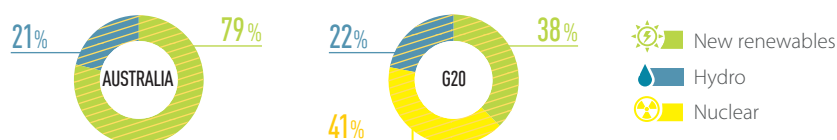


SHARE OF FOSSIL FUELS AND 'ZERO-CARBON' FUELS IN ENERGY SUPPLY¹¹

Share of fossil, 'zero-carbon', new renewables and others in energy supply (%)

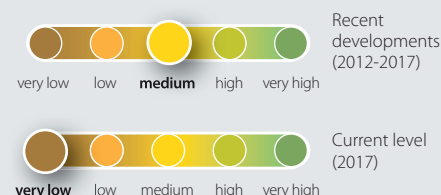


'ZERO-CARBON' SHARES



Source: Enerdata 2018

PERFORMANCE RATING OF SHARE OF FOSSIL FUELS¹²



Source: own evaluation

Zero-carbon fuels include nuclear, hydropower, new renewables. Australia has the G20's second lowest share of zero-carbon fuels in the energy mix. The share increased by 27% (2012-2017).

PERFORMANCE RATING OF SHARE OF ZERO-CARBON TECHNOLOGY¹²

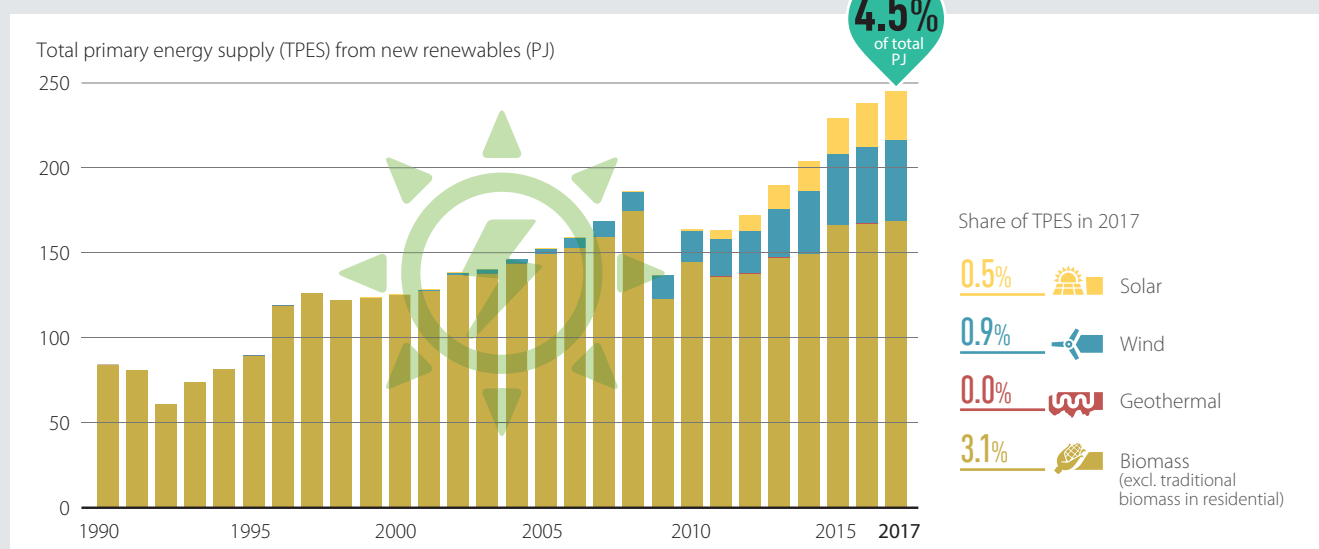


Source: own evaluation

Note: The relative growth of zero-carbon energy is measured as change in absolute levels relative to the absolute level. Australia's low levels of zero-carbon energy implies that a rather small absolute change is reflected as a high relative change and a positive rating for this indicator, even though the absolute change has been smaller than for most other G20 countries.

DECARBONISATION AUSTRALIA

NEW RENEWABLES¹³

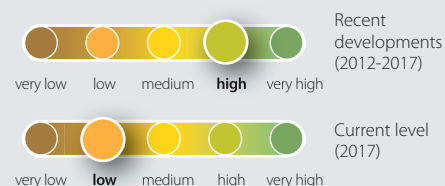


Source: Enerdata 2018

"New renewables" excludes unsustainable renewable sources such as large hydropower. New renewable sources supply 4.5% of energy in Australia – this is within the G20 average. Supply from new renewables increased by 42% (2012–2017), mainly driven by the new development of wind and solar energy.

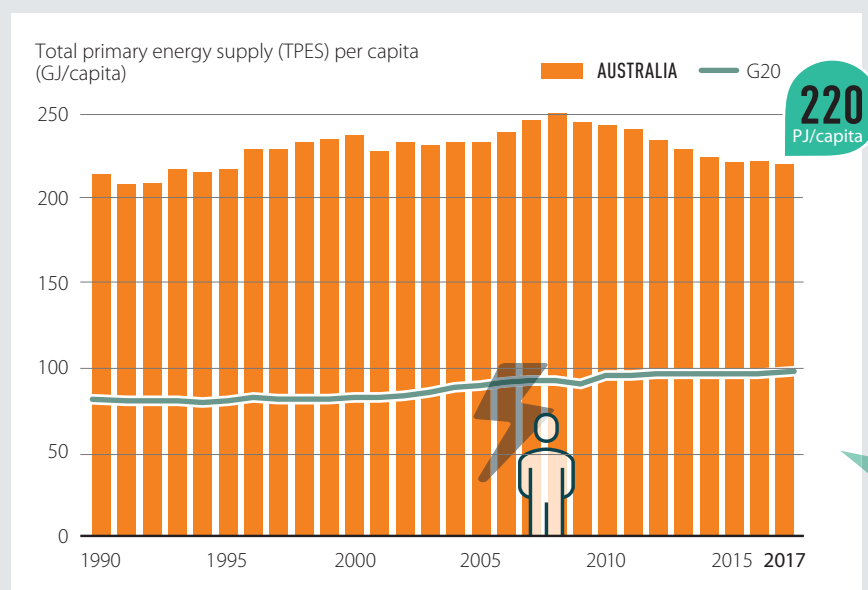
Note: The relative growth of new renewables energy is measured as change in absolute levels relative to the absolute level. Australia's low levels of new renewables energy implies that a rather small absolute change is reflected as a high relative change and a positive rating for this indicator, even though the absolute change has been smaller than for most other G20 countries.

PERFORMANCE RATING OF NEW RENEWABLES¹²



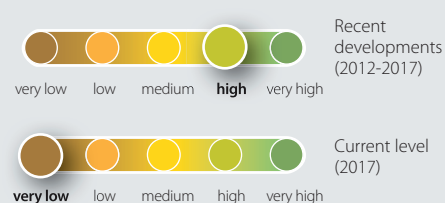
Source: own evaluation

ENERGY USE PER CAPITA¹⁴



Source: Enerdata 2018

PERFORMANCE RATING OF ENERGY USE PER CAPITA¹²

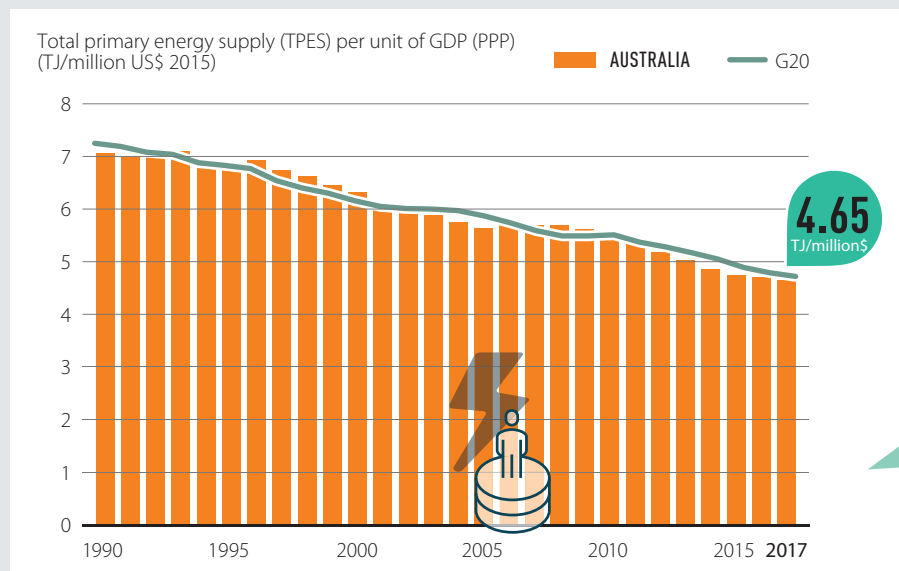


Source: own evaluation

Australia's energy use per capita is with 220 GJ/capita more than twice the G20 average (97 GJ/capita) but fell by 6% (2012–2017).

DECARBONISATION AUSTRALIA

ENERGY INTENSITY OF THE ECONOMY¹⁵



Source: Enerdata 2018

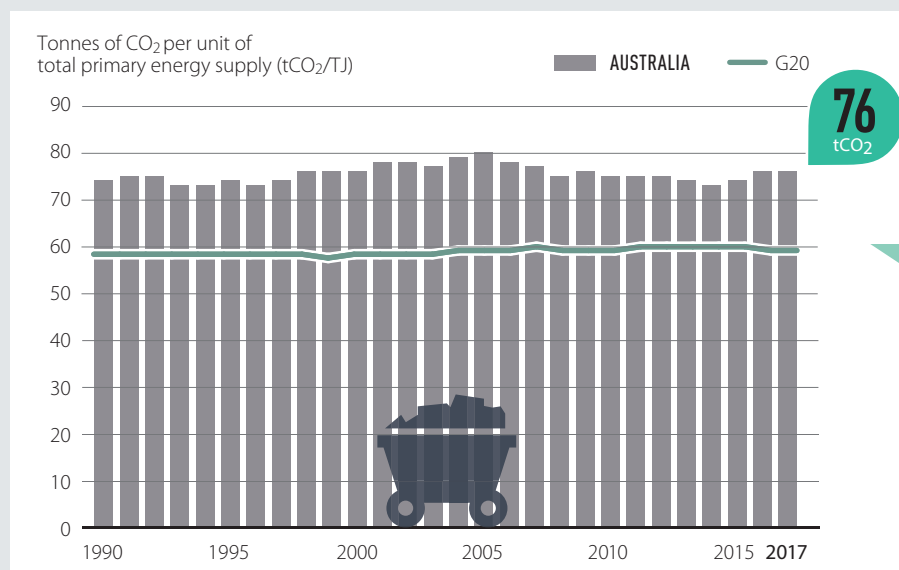
This indicator quantifies how much energy is used for each unit of GDP. Australia's energy intensity lies within the G20 average and has decreased at similar rates.

PERFORMANCE RATING OF ENERGY INTENSITY¹²



Source: own evaluation

CARBON INTENSITY OF THE ENERGY SECTOR¹⁶



Source: Enerdata 2018

Australia's energy sector has the G20's highest carbon intensity, with a high share of fossil fuels in the energy mix. Carbon intensity increased by 1% (2012-2017).

PERFORMANCE RATING OF CARBON INTENSITY¹²



Source: own evaluation

DECARBONISATION

AUSTRALIA

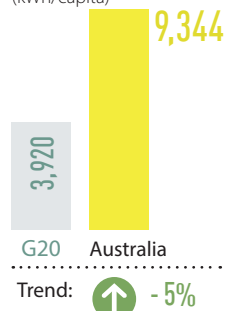
SECTOR-SPECIFIC INDICATORS

Legend for trend: negative positive

The trend number shows developments over the past five years, where data is available

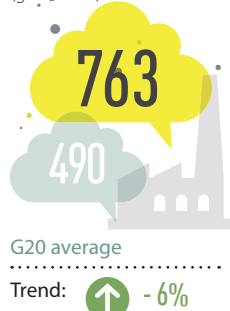
POWER SECTOR

ELECTRICITY DEMAND PER CAPITA
(kWh/capita)



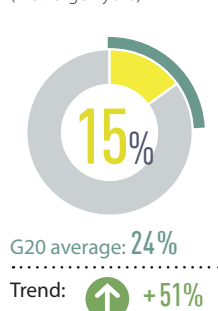
Data from 2017
Source: Enerdata 2018

EMISSIONS INTENSITY OF THE POWER SECTOR
(gCO₂/kWh)



Data from 2016
Source: Enerdata 2018

SHARE OF RENEWABLES IN POWER GENERATION
(incl. large hydro)



Data from 2017
Source: Enerdata 2018

SHARE OF POPULATION WITH ACCESS TO ELECTRICITY



Data from 2016
Source: World Bank 2018

SHARE OF POPULATION WITH BIOMASS DEPENDENCY



Data from 2014
Source: IEA 2016

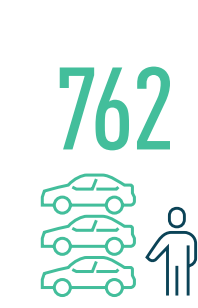
TRANSPORT SECTOR

TRANSPORT EMISSIONS PER CAPITA
(tCO₂/capita)



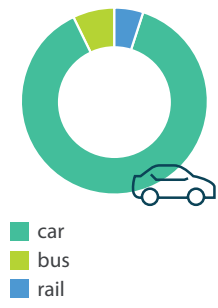
Data from 2017
Source: Enerdata 2018

MOTORISATION RATE
(Vehicles per 1000 inhabitants)



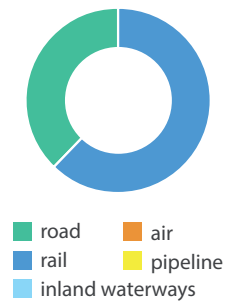
Data from 2016 | Source:
Agora Verkehrswende 2018

PASSENGER TRANSPORT
(modal split in % of passenger-km)



Data from 2015 | Source:
Agora Verkehrswende 2018

FREIGHT TRANSPORT
(modal split in % of tonne-km)



Data from 2015 | Source:
Agora Verkehrswende 2018

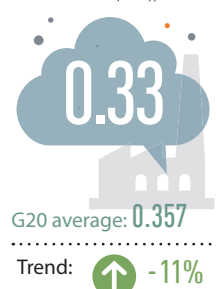
MARKET SHARE OF ELECTRIC VEHICLES IN NEW CAR SALES (%)



Data from 2017
Source: IEA 2018

INDUSTRY SECTOR

INDUSTRY EMISSIONS INTENSITY
(tCO₂e/thousand US\$2015 sectoral GDP (PPP))



Data from 2015 | Source: Enerdata 2018; PRIMAP 2018

BUILDING SECTOR

BUILDING EMISSIONS PER CAPITA
(tCO₂/capita)



Data from 2016
Source: Enerdata 2018

AGRICULTURE SECTOR

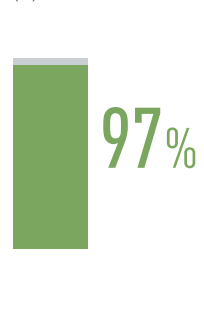
AGRICULTURE EMISSIONS INTENSITY
(tCO₂e/thousand US\$2015 sectoral GDP (PPP))



Data from 2015
Source: PRIMAP 2018

FOREST SECTOR

FOREST AREA COMPARED TO 1990 LEVEL (%)

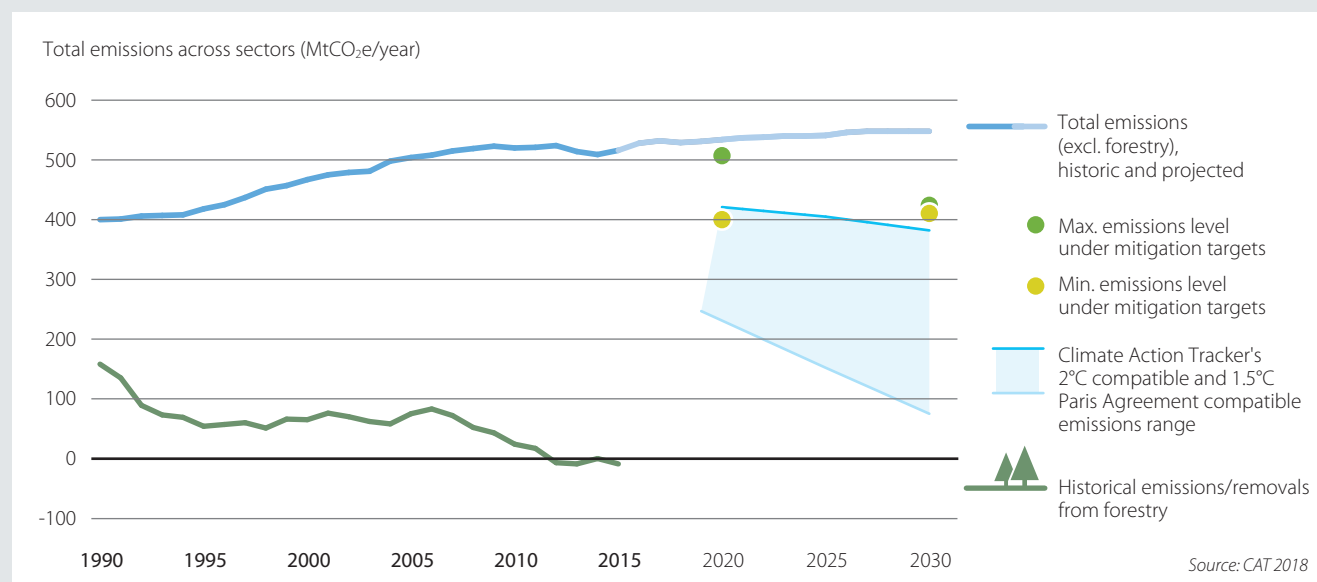


Data from 2015
Source: PRIMAP 2018

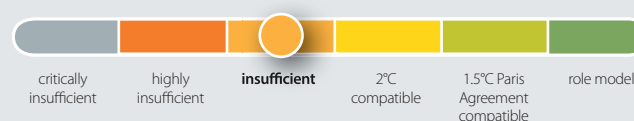


CLIMATE POLICY

AUSTRALIA

COMPATIBILITY OF CLIMATE TARGETS WITH THE PARIS AGREEMENT²

The CAT rates Australia's NDC "insufficient", with a level of ambition that – if followed by all other countries – would lead to global warming of between 2°C and 3°C. The latest projection published by the government shows that emissions are still expected to grow, instead of leading to a reduction in line with the 2030 target. The 2018 CAT assessment confirms that Australia's emissions are set to far exceed its NDC target for 2030 under current policies.

CLIMATE ACTION TRACKER (CAT) EVALUATION OF NDC²

NATIONALLY DETERMINED CONTRIBUTION (NDC)

MITIGATION

Targets	Overall targets Implement an economy-wide target to reduce GHG emissions by 26 to 28 per cent below 2005 levels by 2030 Coverage 100% of emissions covered (all sectors and gases)
Actions	Actions specified (sectors: energy, transport)

ADAPTATION

Targets	Not mentioned
Actions	Actions mentioned but not further specified

Source: own compilation based on UNFCCC 2018

FINANCE

Conditionality	Not applicable
Investment needs	Not specified
Actions	Not mentioned
International market mechanisms	Not mentioned





CLIMATE POLICY

AUSTRALIA

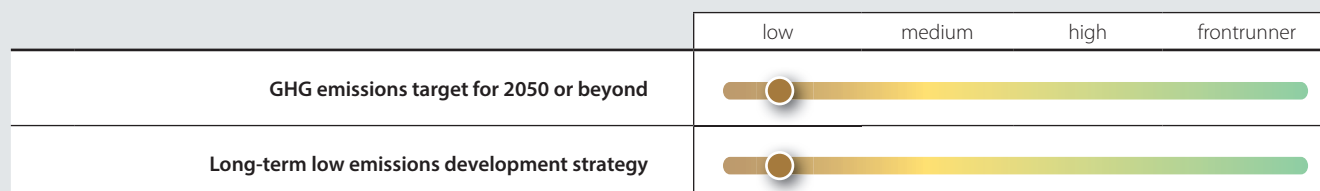
POLICY EVALUATION¹⁷

The ratings evaluate a selection of policies that are essential pre-conditions for the longer-term transformation required to meet the 1.5°C limit. They do not represent a complete picture of what is necessary.

Legend:

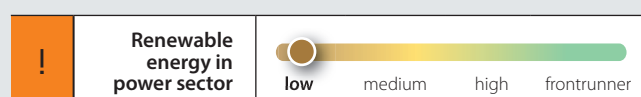
low No action**medium** Some action**high** Significant action and a long-term vision**frontrunner** Significant action, and a long-term vision that is compatible with 1.5°C

! most important measures based on share of emissions and political relevance

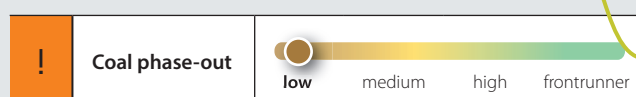


Australia does not have a long-term low emissions strategy nor a 2050 emissions target.

POWER

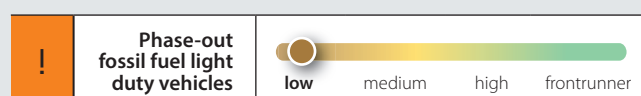


There are virtually no policies apart from the renewable energy target, which will expire in 2020 and, according to current plans, not be replaced. Despite this federal inaction, renewables continue to rise due to their economic attractiveness.



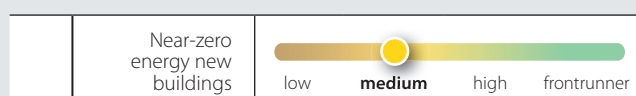
Coal has featured prominently in government statements on energy security and the future of Australia's power system. At the same time nine coal power stations have been retired in the past five years, including Hazelwood, a 1,600-MW lignite coal-fired plant, due to no longer being economically viable. This illustrates the economic challenges that coal plants face in Australia against continuously decreasing costs of renewables and storage.

TRANSPORT



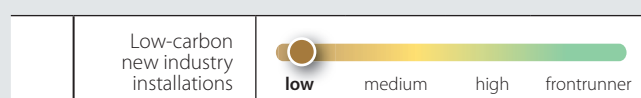
Emissions in the transport sector are increasing but there are barely any policies in place. The government provides exemptions from some vehicle taxes for highly efficient vehicles. In contrast to other developed countries, Australia does not have any efficiency or emissions standards for passenger vehicles, which cause the largest share of emissions.

BUILDINGS



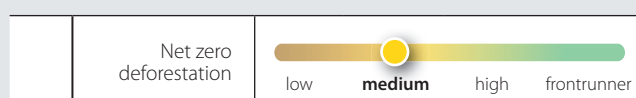
Energy efficiency requirements in building codes for residential and commercial buildings are out of date with recent technologies; changes to the National Construction Code are currently under consideration.

INDUSTRY



Australia's manufacturing industry is the most energy-intensive in the world. It was the only developed country to see an increase in energy consumption between 2000 and 2015. There is no overall strategy in sight to decarbonise the industry sector.

FORESTS



There has been a significant increase in deforestation in recent years, making Australia the world's only developed country with a deforestation hotspot. In several states, clearing laws have either been recently weakened or are currently facing rollbacks.

Source: own evaluation

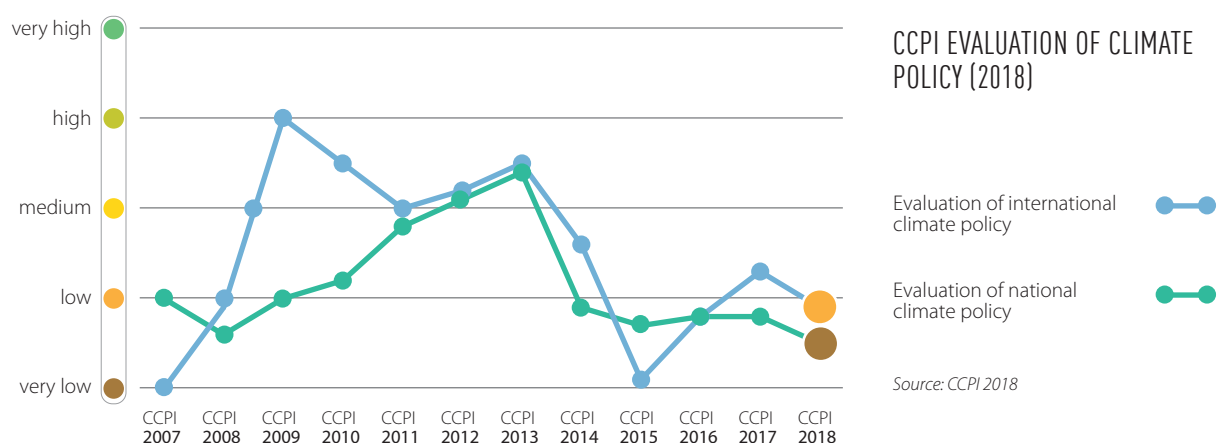


CLIMATE POLICY

AUSTRALIA

CCPI EXPERTS' POLICY EVALUATION¹⁸

Australian experts rate national and international policy performance as very low. They say the 2030 emissions reduction and renewables targets are not ambitious enough, that there is no commitment to phase out fossil fuels, and that policies are not enforced. They criticise its failure to engage with other countries on international policy or to show leadership in international negotiations.

JUST TRANSITION¹⁹

Recent just transition discourse in Australia has centred on the closure of Hazelwood power station, a lignite power station in the Latrobe Valley formerly employing some 750 workers. While Australian unions have long campaigned for workers' interests in the face of low-carbon policy, Hazelwood's closure prompted the first significant action to realise the just transition concept. Major Australian unions (the CFMEU and ACTU) combined to negotiate a comprehensive agreement with the Victoria state government and three privately owned power stations. The Latrobe Valley Worker Transfer Scheme aimed to manage and

prevent job losses, rather than only mitigate their effects. Under the agreement, Hazelwood workers are placed in alternative jobs, and partner companies commit to minimise job losses, retrain workers and implement early retirement schemes, allowing more opportunities for younger workers wanting to remain in the industry.





FINANCING THE TRANSITION

AUSTRALIA

FINANCIAL POLICIES AND REGULATIONS

Through policy and regulation governments can overcome challenges to mobilising green finance, including: real and perceived risks, insufficient returns on investment, capacity and information gaps.

APPROACHES TO IMPLEMENTING THE RECOMMENDATIONS OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD)²⁰

This indicator establishes the degree of government engagement with the recommendations of the G20 Financial Stability Board's Task Force on Climate-Related Financial Disclosure.

No formal engagement with TCFD	Political and regulatory engagement	Formal engagement with private sector	Publication of guidance and action plans	Encoding into law

Source: CISL 2018

In 2017, Australia's Prudential Regulation Authority called for TCFD implementation while the Council of Financial Regulators established a Climate Change Working Group to coordinate action across the Australian financial system. The Australian Senate engaged the private sector through a report and public hearing that sought private sector submissions on carbon risk disclosure.

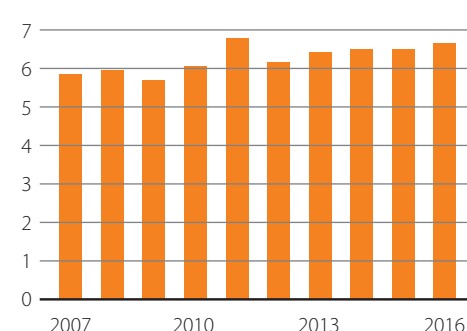
FISCAL POLICY LEVERS

Fiscal policy levers raise public revenues and direct public resources. Critically, they can shift investment decisions and consumer behaviour towards low-carbon, climate-resilient activities by reflecting externalities in prices.

FOSSIL FUEL SUBSIDIES

In 2016, Australia provided US\$6.7bn in fossil fuel subsidies (from US\$5.9bn in 2007). From 2007 to 2016, subsidies were greater (US\$0.006) than the G20 average (US\$0.003) per unit of GDP. Subsidies targeted consumption (99%), through direct budget support and tax exemptions. The largest is the fuel tax credit scheme granting on-road heavy transport and off-road users excise tax rebates, particularly benefiting the mining sector (US\$4.4bn in 2016).

Fossil fuel subsidies (US\$ billions)

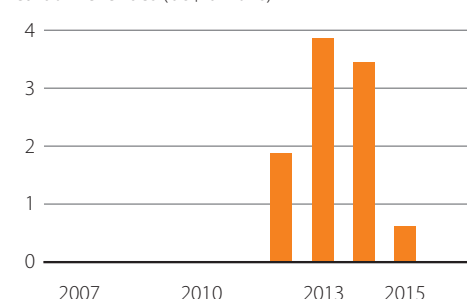


Source: OECD/IEA 2018

CARBON REVENUES

In 2015, Australia phased out its national carbon tax. In 2012 to 2015, carbon revenues were higher (US\$0.0022) than the G20 average (US\$0.0004) per unit of GDP. No other carbon taxation or emissions trading schemes are currently planned, whether national or subnational.

Carbon revenues (US\$ billions)



No explicit carbon pricing scheme in place before 2012 nor after 2015.

Source: I4CE 2018



FINANCING THE TRANSITION

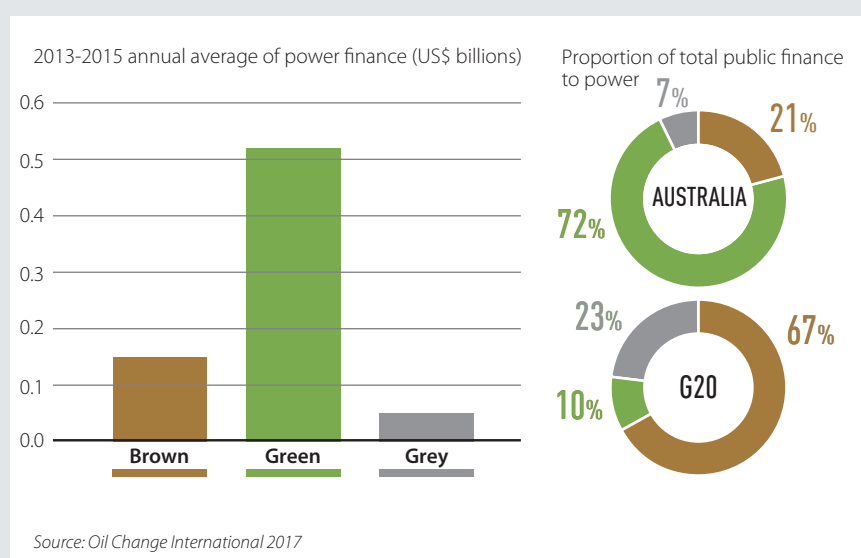
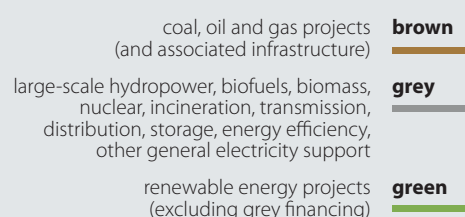
AUSTRALIA

PUBLIC FINANCE

Governments steer investments through their public finance institutions including via development banks, both at home and overseas, and green investment banks. Developed G20 countries also have an obligation to provide finance to developing countries and public sources are a key aspect of these obligations under the UNFCCC.

NATIONAL AND INTERNATIONAL PUBLIC FINANCE IN THE POWER SECTOR²¹

From 2013 to 2015, Australia's public finance institutions spent an annual average of US\$0.2bn brown, US\$0.5bn green and US\$0.1bn grey financing in the power sector, domestically and internationally. The largest transactions were the Australia Renewable Energy Agency loan (US\$151m) to the AGL solar project, and the Export Finance and Insurance Corporation loan (US\$148m) to the Ichthys natural gas extraction project.



PROVISION OF INTERNATIONAL PUBLIC SUPPORT

Australia ranked seventh as a provider of climate finance in 2015/16 through both bilateral flows and multilateral climate funds. There remains bias towards mitigation via multilateral climate funds while all bilateral finance is considered cross-cutting, with a small decrease in both totals since 2013/14. In August 2018, the Australian government, however, stated its intention to drop all its contributions to the Green Climate Fund. While Australia may channel international public finance via multilateral development banks, this has not been included in this report.

OBLIGATION TO PROVIDE CLIMATE FINANCE UNDER UNFCCC

YES

NO

CONTRIBUTIONS THROUGH THE MAJOR MULTILATERAL CLIMATE FUNDS²²

Note: See Technical Note for multilateral climate funds included and method to attribute amounts to countries

Source: Climate Funds Update 2017

Annual average contribution (mn US\$, 2015-2016)	Theme of support		
	Adaptation	Mitigation	Cross-cutting
33.26	24%	61%	15%

BILATERAL CLIMATE FINANCE CONTRIBUTIONS²³

Source: Country reporting to the UNFCCC

Annual average contribution (mn US\$, 2015-2016)	Theme of support			
	Mitigation	Adaptation	Cross-cutting	Other
95.16	0%	0%	100%	0%



ANNEX

G20



For more detail on sources and methodologies, please refer to the Technical Note at:

https://www.climate-transparency.org/wp-content/uploads/2018/11/Technical-Note_data-sources-and-methodology.pdf

- 1) The 2030 projections of the future development of greenhouse gas (GHG) emissions under current policies are based on the Climate Action Tracker (CAT) estimates.
- 2) The CAT is an independent scientific analysis that tracks progress towards the globally agreed aim of holding warming to well below 2°C, and pursuing efforts to limit warming to 1.5°C. The CAT "Effort Sharing" assessment methodology applies state-of-the-art scientific literature on how to compare the fairness of government efforts and (Intended) Nationally Determined Contribution (I) NDC proposals against the level and timing of emission reductions consistent with the Paris Agreement. The assessment of the temperature implications of a country's NDC is based on the assumption that all other governments would follow a similar level of ambition.
- 3) This assessment is based on the policy evaluation on page 9 of this Country Profile.
- 4) Gross Domestic Product (GDP) per capita is calculated by dividing GDP with mid-year population figures. GDP is the value of all final goods and services produced within a country in a given year. Here GDP figures at purchasing power parity (PPP) are used. Data for 2017.
- 5) The Human Development Index (HDI) is a composite index published by the United Nations Development Programme (UNDP). It is a summary measure of average achievement in key dimensions of human development. A country scores higher when the lifespan is higher, the education level is higher, and GDP per capita is higher.
- 6) The ND-GAIN index summarises a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience. This report looks only at the exposure indicators as part of the vulnerability component of the ND-GAIN index for six sectors. It displays the exposure scores provided by the ND-GAIN on a scale from low (score: 0) to high (score: 1).
- 7) The indicator covers all Kyoto gases showing historic emissions in each of the IPCC source categories (energy, industrial processes, agriculture, etc.). Emissions projections (excl. forestry) under a current policy scenario until 2030 are taken from the Climate Action Tracker and scaled to the historical emissions from PRIMAP (see Brown to Green Report 2018 Technical Note).
- 8) The ratings on GHG emissions are taken from the Climate Change Performance Index (CCPI) 2018. The rating of "current level compared to a well below 2°C pathway" is based on a global scenario of GHG neutrality in the second half of the century and a common but differentiated convergence approach.
- 9) CO₂ emissions cover only the emissions from fossil fuels combustion (coal, oil and gas) by sector. They are calculated according to the UNFCCC methodology (in line with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories).
- 10) Total primary energy supply data displayed in this Country Profile does not include non-energy use values. Solid fuel biomass in residential use has negative environmental and social impacts and is shown in the category "other".
- 11) Zero-carbon fuels include nuclear, hydropower and new renewables (non-residential biomass, geothermal, wind, solar).
- 12) Climate Transparency ratings assess the relative performance across the G20. A high scoring reflects a good effort from a climate protection perspective but is not necessarily 1.5°C compatible.
- 13) New renewables include non-residential biomass, geothermal, wind and solar energy. Hydropower and solid fuel biomass in residential use are excluded due to their negative environmental and social impacts.
- 14) Total primary energy supply (TPES) per capita displays the historical, current and projected energy supply in relation to a country's population. Alongside the intensity indicators (TPES/GDP and CO₂/TPES), TPES per capita gives an indication on the energy efficiency of a country's economy. In line with a well-below 2°C limit, TPES per capita should not grow above current global average levels. This means that developing countries are still allowed to expand their energy use to the current global average, while developed countries have to simultaneously reduce it to that same number.
- 15) TPES per GDP describes the energy intensity of a country's economy. This indicator illustrates the efficiency of energy usage by calculating the energy needed to produce one unit of GDP. Here GDP figures at PPP are used. A decrease in this indicator can mean an increase in efficiency but also reflects structural economic changes.
- 16) The carbon intensity of a country's energy sector describes the CO₂ emissions per unit of total primary energy supply and gives an indication of the share of fossil fuels in the energy supply.



ANNEX (continued)

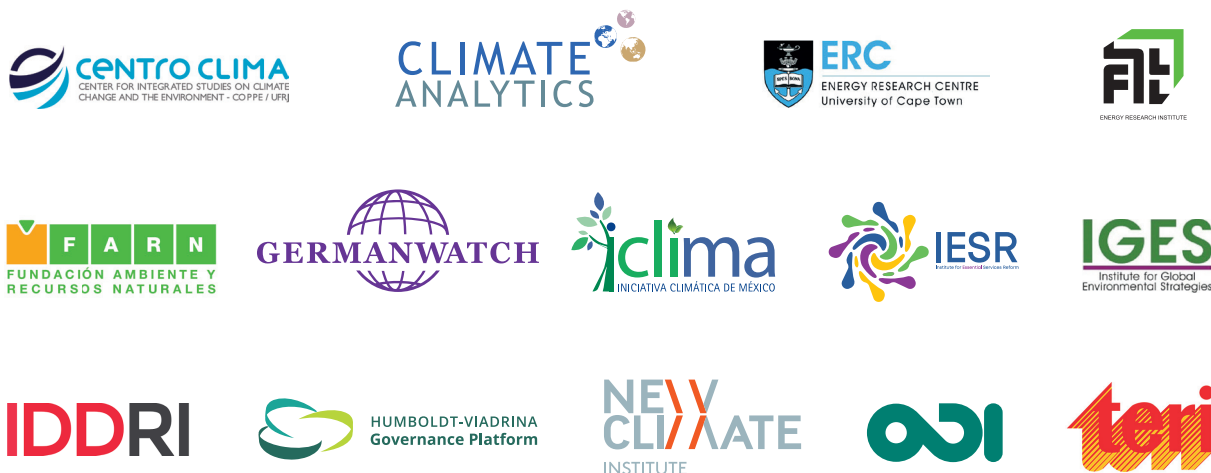


- 17) The selection of policies rated and the assessment of 1.5°C compatibility are informed by the Paris Agreement and the Climate Action Tracker (2016): "The ten most important short-term steps to limit warming to 1.5°C". The table below displays the criteria used to assess a country's policy performance. See the Brown to Green Report 2018 Technical Note for the sources used for this assessment.
- 18) The CCPI evaluates a country's performance in national climate policy, as well as international climate diplomacy through feedback from national experts from non-governmental organisations to a standardised questionnaire.
- 19) See the Brown to Green 2018 Technical Note for the sources used for this assessment.
- 20) The University of Cambridge Institute for Sustainability Leadership (CISL) in early 2018 reviewed the progress made by the national regulatory agencies of G20 members in making the Task Force on Climate-related Financial Disclosures (TCFD) recommendations relevant to their national contexts. See the Brown to Green Report 2018 Technical Note for more information on the assessment.
- 21) This data includes bilateral public finance institutions such as national development banks and other development finance institutions, overseas aid agencies, export credit agencies, as well as key multilateral development banks. The analysis omits most finance delivered through financial intermediaries and significant volumes of multilateral development bank (MDB) development policy finance (due to a lack of clarity on power finance volumes). Given a lack of transparency, other important multilateral institutions in which G20 governments participate are not covered. See the Brown to Green Report 2018 Technical Note for further details.
- 22) Finance delivered through multilateral climate funds comes from Climate Funds Update, a joint ODI/Heinrich Boell Foundation database that tracks spending through major multilateral climate funds. See the Brown to Green Report 2018 Technical Note for multilateral climate funds included and method to attribute approved amounts to countries.
- 23) Bilateral finance commitments are sourced from Biennial Party reporting to the UNFCCC. Financial instrument reporting is sourced from the OECD-DAC; refer to the Brown to Green Report 2018 Technical Note for more detail. Figures represent commitments of Official Development Assistance (ODA) funds to projects or programmes, as opposed to actual disbursements.

On endnote 17)	Criteria description			
	● Low	● Medium	● High	● Fronrunner
GHG emissions target for 2050 or beyond	No emissions reduction target for 2050 or beyond	Existing emissions reduction target for 2050 or beyond	Existing emissions reduction target for 2050 or beyond and clear interim steps	Emissions reduction target to bring GHG emissions to at least net zero by 2050
Long-term low emissions development strategy	No long-term low emissions strategy	Existing long-term low emissions strategy	Long-term low emissions strategy includes interim steps and/or sectoral targets	Long-term low emissions strategy towards full decarbonisation in the second half of the century; includes interim steps and/or sectoral targets, plus institutions and measures in place to implement and/or regularly review the strategy
Renewable energy in power sector	Allianz Monitor 2018 Category 1.2 (targets) and 2 (policies), average 0-25	Allianz Monitor 2018 Category 1.2 (targets) and 2 (policies), average 26-60	Allianz Monitor 2018 Category 1.2 (targets) and 2 (policies), average 61-100	Allianz Monitor 2018 Category 1.2 (targets) and 2 (policies), 61-100 plus 100% renewables in the power sector by 2050 in place
Coal phase-out	No consideration or policy in place for phasing out coal	Significant action to reduce coal use implemented or coal phase-out under consideration	Coal phase-out decided and under implementation	Coal phase-out date compatible with 1.5°C
Phase-out of fossil fuel light duty vehicles (LDVs)	No policy or emissions performance standards for LDVs in place	Energy/emissions performance standards or support for efficient LDVs	National target to phase out fossil fuel LDVs in place	Ban on new fossil-based LDVs by 2025/30
Near zero-energy new buildings	No policy or low emissions building codes and standards in place	Building codes, standards or fiscal/financial incentives for low emissions options in place	National strategy for near zero-energy buildings (at least for all new buildings)	National strategy for near zero-energy buildings by 2020/25 (at least for all new buildings)
Low-carbon new industry installations	No policy or support for energy efficiency in industrial production in place	Support for energy efficiency in industrial production (covering at least two of the country's sub-sectors (e.g. cement and steel production))	Target for new installations in emissions-intensive sectors to be low-carbon	Target for new installations in emissions-intensive sectors to be low-carbon after 2020, maximising efficiency
Net zero deforestation	No policy or incentive to reduce deforestation in place	Incentives to reduce deforestation or support schemes for afforestation / reforestation in place	National target for reaching zero deforestation	National target for reaching zero deforestation by 2020s or for increasing forest coverage

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Data Partners:



<http://www.climate-transparency.org/g20-climate-performance/g20report2018>

