

BROWN TO GREEN:

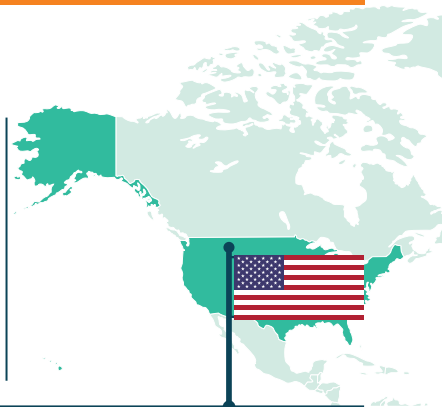
THE G20 TRANSITION TO A LOW-CARBON ECONOMY | 2018

UNITED STATES

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



Data from 2015 | Source: PRIMAP 2018



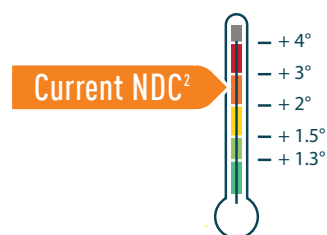
The gap:

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

Based on implemented policies, US **GHG emissions** are projected to level to around 6.2 to 6.4 GtCO₂e by 2030 (excl. forestry). This emission pathway is not compatible with the Paris Agreement.¹

The US intends to withdraw from the Paris Agreement, and annul its **NDC**. The NDC is not consistent with the Paris Agreement's temperature limit but would lead to a warming between 2°C and 3°C.²

The US's sectoral **policies** fall short of being consistent with the Paris Agreement, which is not helped by the ongoing rollback of climate policies.³



Source: CAT 2018

Recent developments:

What has happened since the Paris conference?

↓ The US Environmental Protection Agency's move to replace the Clean Power Plan is a lost opportunity to accelerate the current movement towards a decarbonised electricity sector in the US.

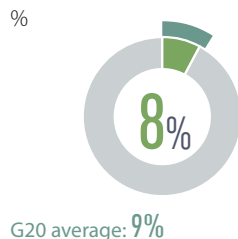
↓ In August 2018, the US announced that it would revoke the country's clean car standards. From 2020, cars and trucks will no longer be required to become more fuel-efficient every year.

↑ With the "We are still in" declaration, over 3,500 cities, states, businesses, and other organisations have pledged to abide by the Paris Agreement despite the US' announced withdrawal.

Brown and green performance:

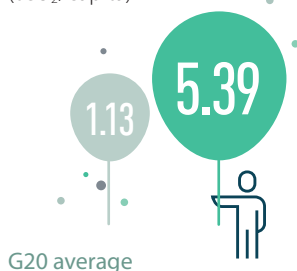
Where does the US lead or lag compared to G20 countries?

SHARE OF RENEWABLES (INCL. HYDRO AND EXCL. RESIDENTIAL BIOMASS) IN ENERGY SUPPLY %



Data from 2017 | Source: Enerdata 2018

TRANSPORT EMISSIONS PER CAPITA (tCO₂/capita)



Data from 2017 | Source: Enerdata 2018

FOSSIL FUEL SUBSIDIES

The US' fossil fuel subsidies as share of GDP are well above G20 average

8.64 billion US\$ in 2016

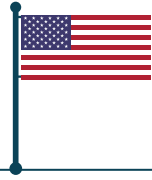
G20 average: US\$ 7.87 bn



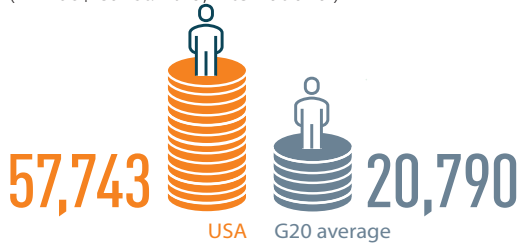
Source: OECD/IEA 2018

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:
UNITED STATES**

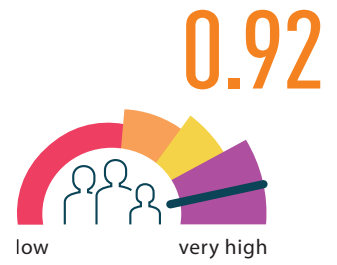


GDP PER CAPITA⁴
(PPP US\$ const. 2015, international)



Source: World Bank 2017

HUMAN DEVELOPMENT INDEX⁵



Data from 2017 | Source: UNDP 2018

THE US'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

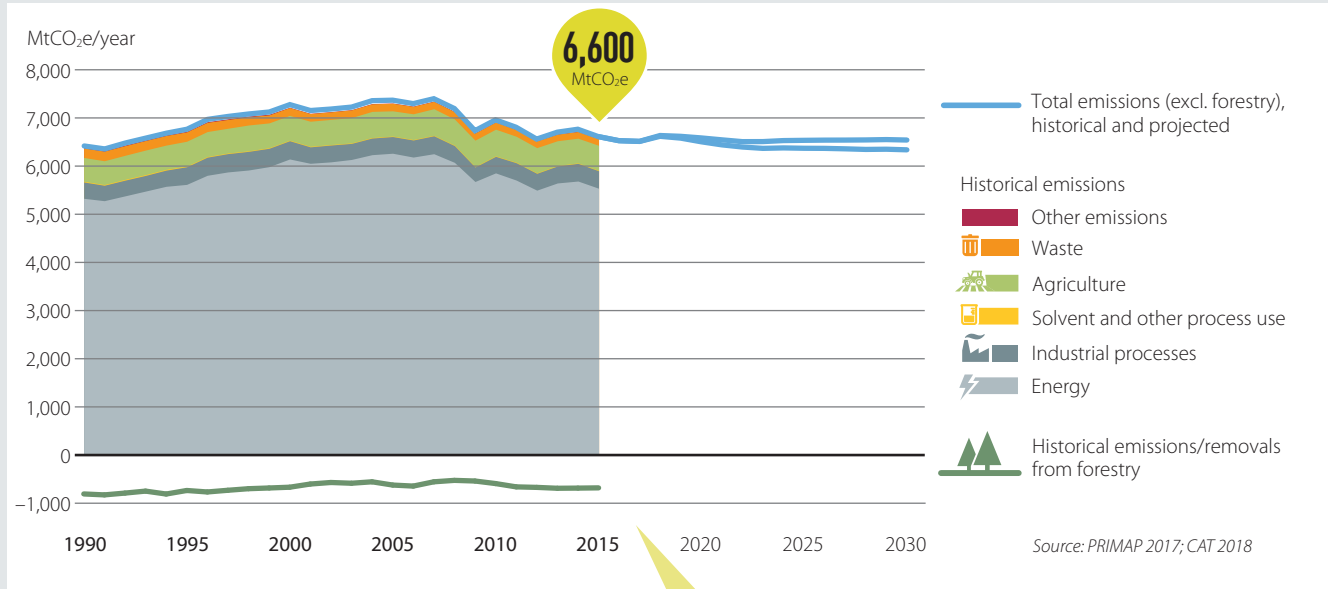


Own composition based on ND-GAIN 2017 (based on data for 2016)

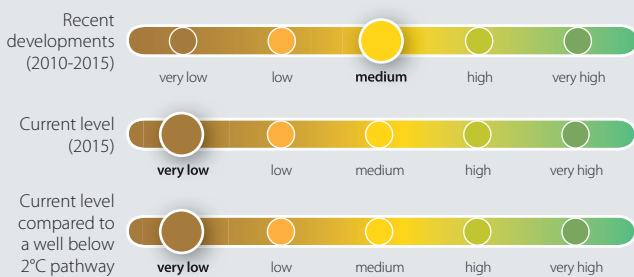
GREENHOUSE GAS (GHG) EMISSIONS

UNITED STATES

TOTAL GHG EMISSIONS ACROSS SECTORS⁷



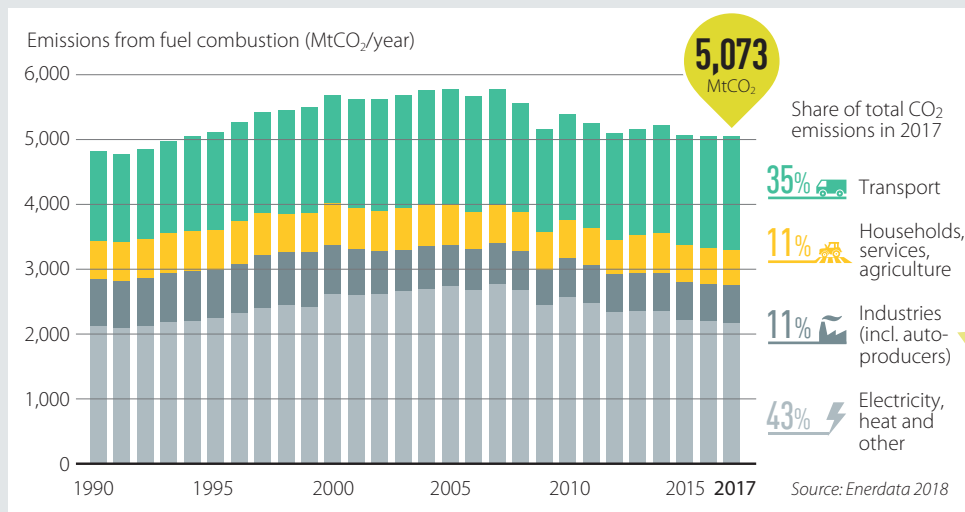
CCPI PERFORMANCE RATING OF GHG EMISSIONS PER CAPITA⁸



Source: CCPI 2018

GHG emissions per capita in the US are at 20 tCO₂e/capita well above the G20 average (8 tCO₂e/capita). Total GHG emissions increased by 12% between 1990 and 2008, and declined thereafter to 3% over the 1990 level in 2015. Emissions are expected to decrease only slightly towards 2030. The energy sector contributes most to overall emissions.

ENERGY-RELATED CO₂ EMISSIONS⁹

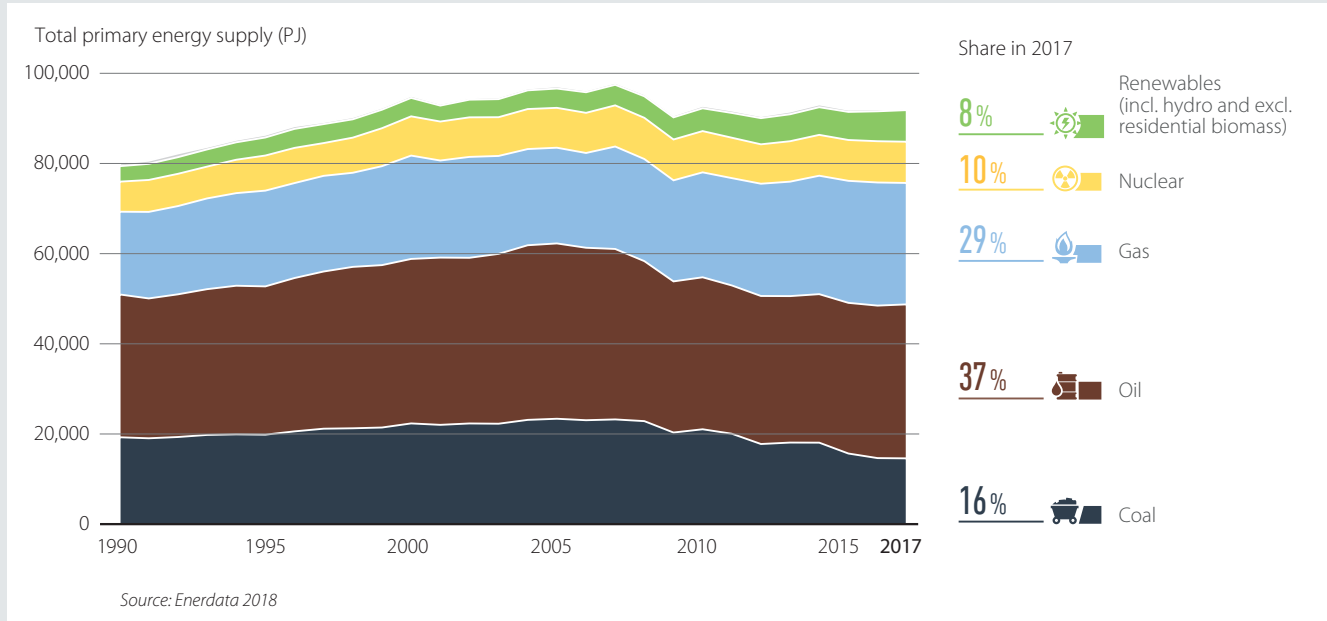


The largest driver for overall GHG emissions are CO₂ emissions from energy, which slightly decreased by 1% (2012–2017). Emissions from electricity and heat generation decreased slightly, while emissions from transport increased.

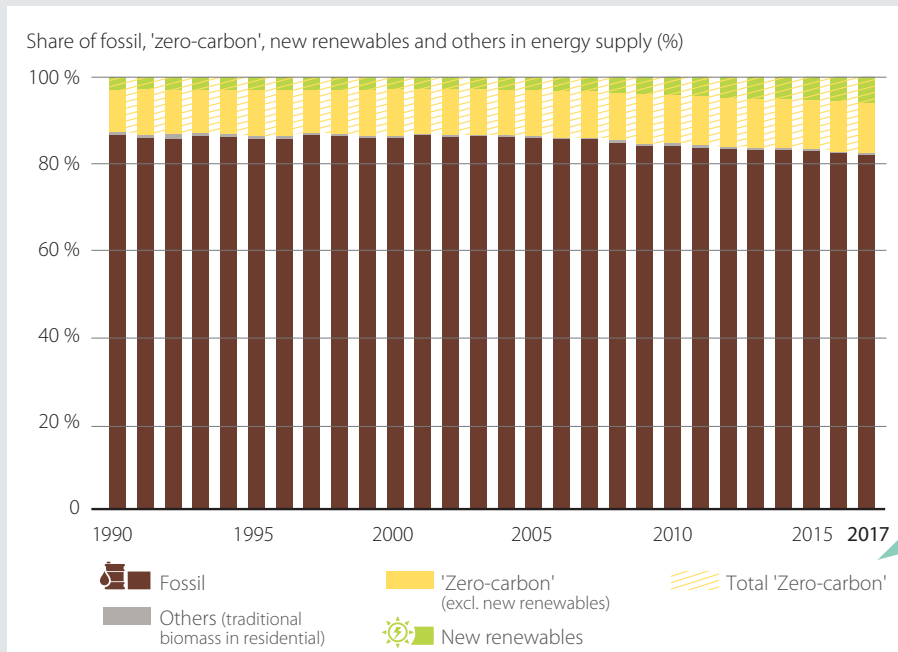
DECARBONISATION

UNITED STATES

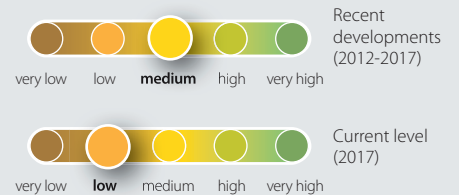
ENERGY MIX¹⁰



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



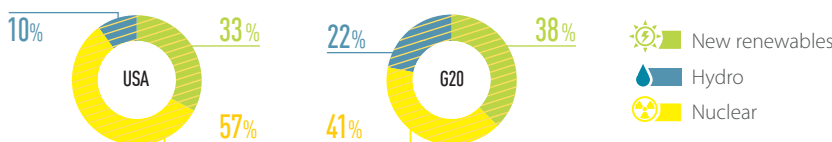
PERFORMANCE RATING OF SHARE OF FOSSIL FUELS¹²



Source: own evaluation

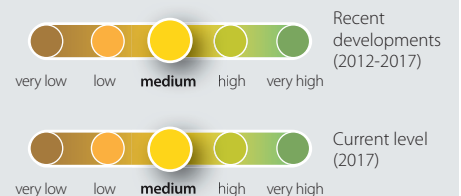
Zero-carbon fuels include nuclear, hydropower, new renewables. In the US, their share in the energy mix increased by 9% (2012–2017), and at 18% (mainly nuclear) is above the G20 average (14%).

'ZERO-CARBON' SHARES



Source: Enerdata 2018

PERFORMANCE RATING OF SHARE OF ZERO-CARBON TECHNOLOGY¹²

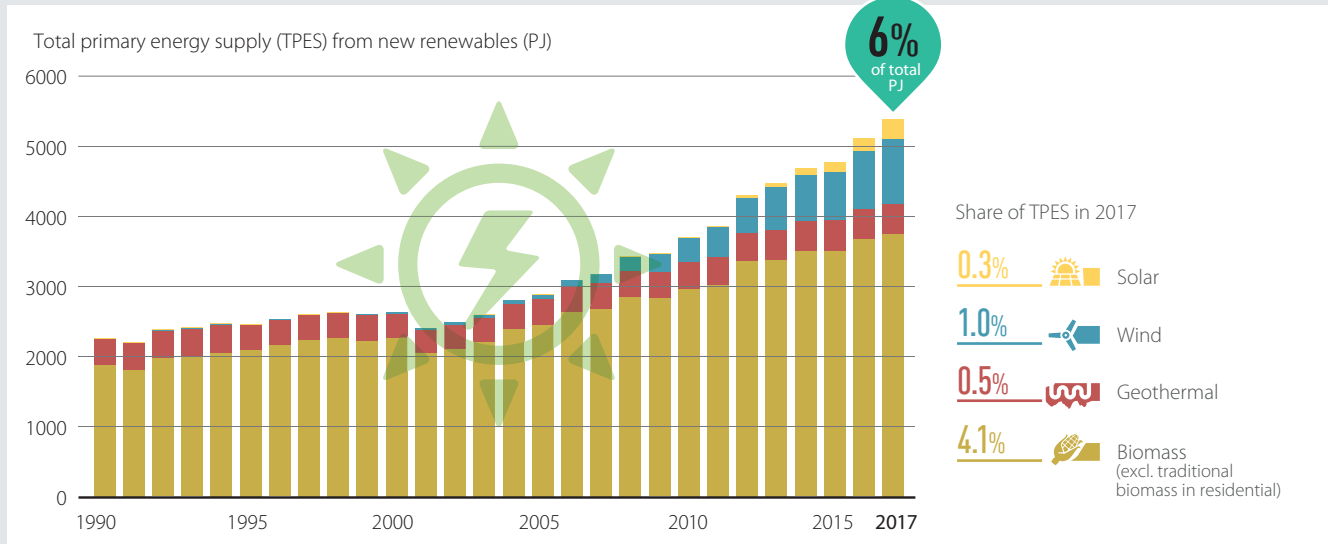


Source: own evaluation

DECARBONISATION

UNITED STATES

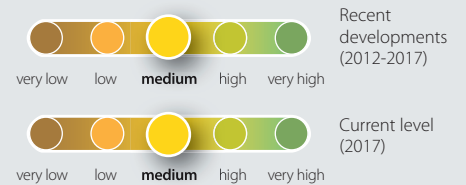
NEW RENEWABLES¹³



Source: Enerdata 2018

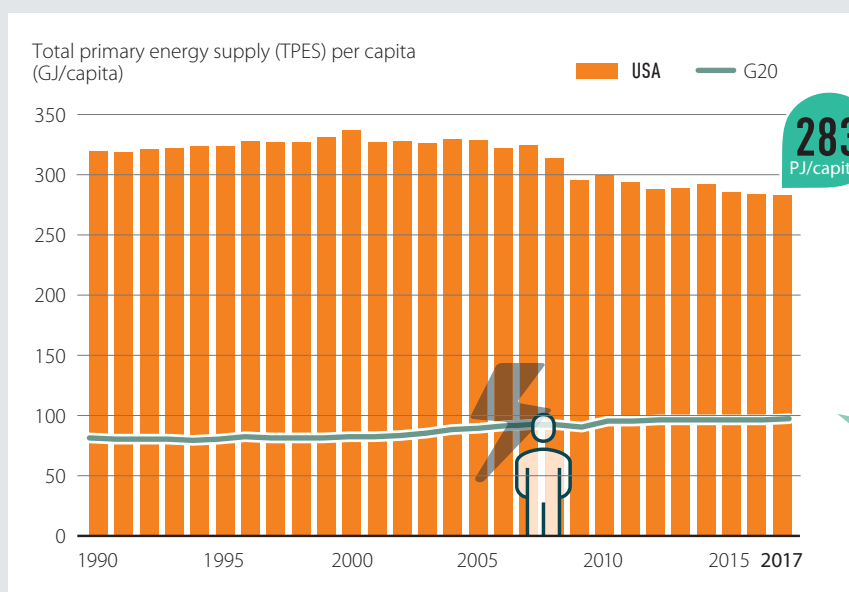
“New renewables” excludes unsustainable renewable sources such as large hydropower. New renewables account for 6% of the US energy mix, slightly higher than the G20 average (5%). The amount of energy from new renewable sources has increased by 25% (2012–2017), mainly driven by biomass but increasingly also wind and solar.

PERFORMANCE RATING OF NEW RENEWABLES¹²



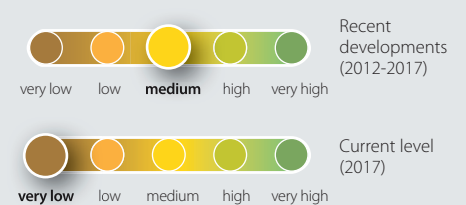
Source: own evaluation

ENERGY USE PER CAPITA¹⁴



Source: Enerdata 2018

PERFORMANCE RATING OF ENERGY USE PER CAPITA¹²



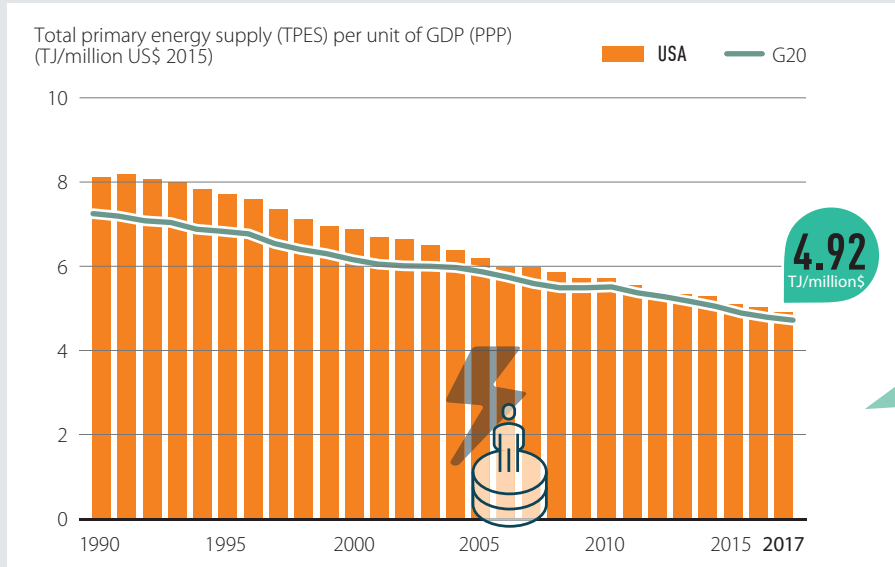
Source: own evaluation

US energy use per capita is among the highest in the G20. It decreased slightly by 2% (2012–2017) but is still almost three times the G20 average.

DECARBONISATION

UNITED STATES

ENERGY INTENSITY OF THE ECONOMY¹⁵



This indicator quantifies how much energy is used for each unit of GDP. The US' energy intensity is in the G20 average, but is decreasing at a slower pace (-8%, 2012-2017) than the G20 average (-11%).

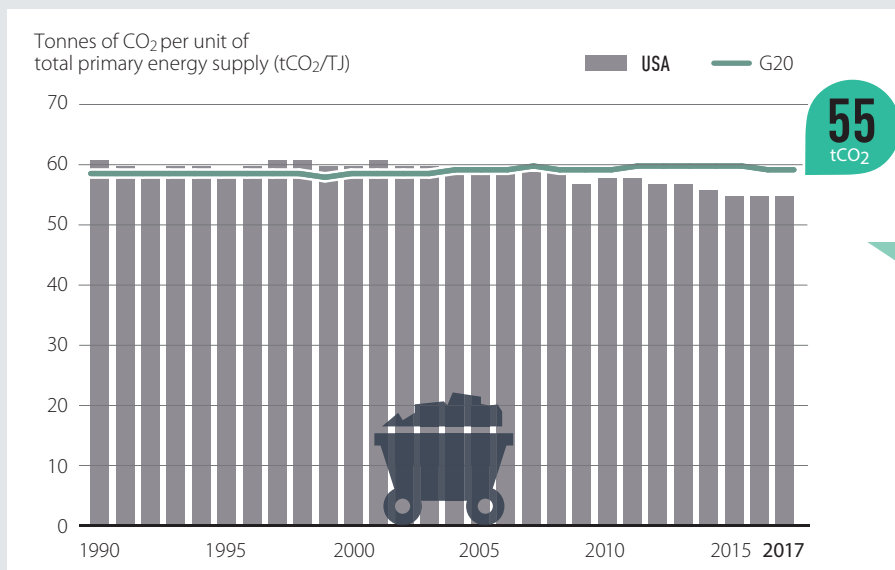
Source: Enerdata 2018

PERFORMANCE RATING OF ENERGY INTENSITY¹²



Source: own evaluation

CARBON INTENSITY OF THE ENERGY SECTOR¹⁶



The carbon intensity of the US's energy sector is slightly below G20 average and shows a decreasing trend (-3%, 2012-2017) reflecting the replacement of coal by gas and new renewables.

Source: Enerdata 2018

PERFORMANCE RATING OF CARBON INTENSITY¹²



Source: own evaluation

DECARBONISATION

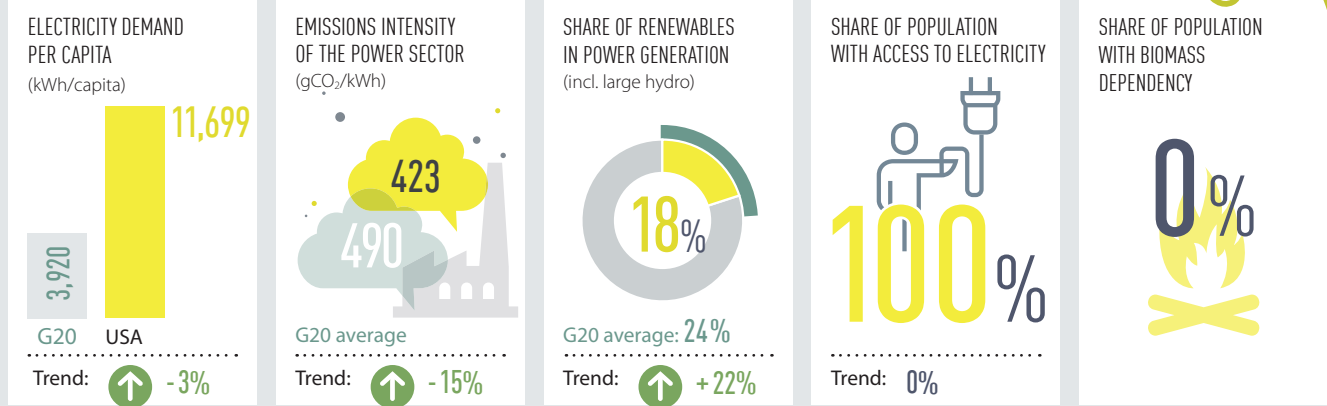
UNITED STATES

SECTOR-SPECIFIC INDICATORS

Legend for trend: negative positive

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

POWER SECTOR



Data from 2017
Source: Enerdata 2018

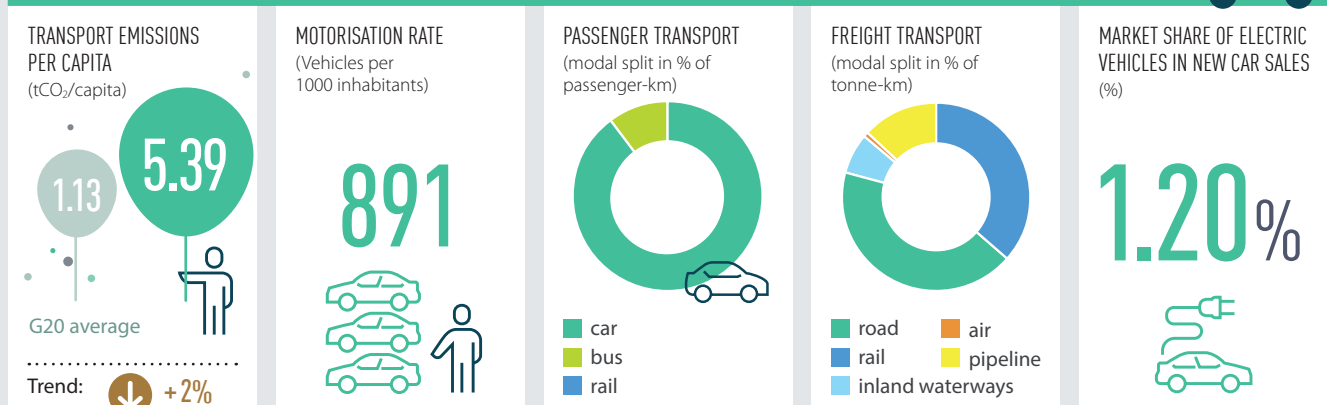
Data from 2016
Source: Enerdata 2018

Data from 2017
Source: Enerdata 2018

Data from 2016
Source: World Bank 2018

Data from 2014
Source: IEA 2016

TRANSPORT SECTOR



Data from 2017
Source: Enerdata 2018

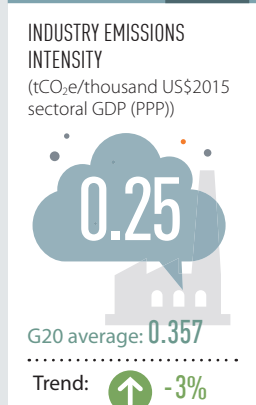
Data from 2016 | Source: Agora Verkehrswende 2018

Data from 2015 | Source: Agora Verkehrswende 2018

Data from 2015 | Source: Agora Verkehrswende 2018

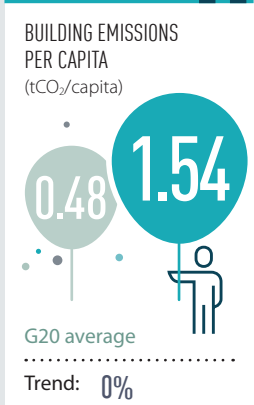
Data from 2017
Source: IEA 2018

INDUSTRY SECTOR



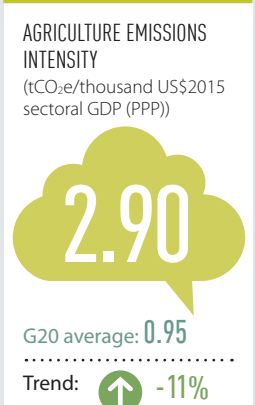
Data from 2015
Source: PRIMAP 2018

BUILDING SECTOR



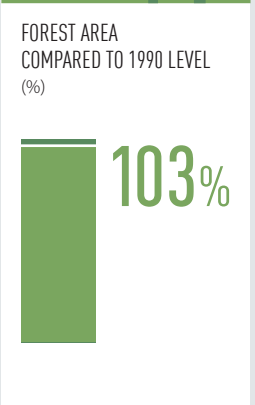
Data from 2016
Source: Enerdata 2018

AGRICULTURE SECTOR

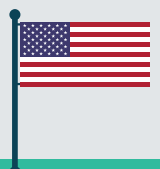


Data from 2015
Source: PRIMAP 2018

FOREST SECTOR



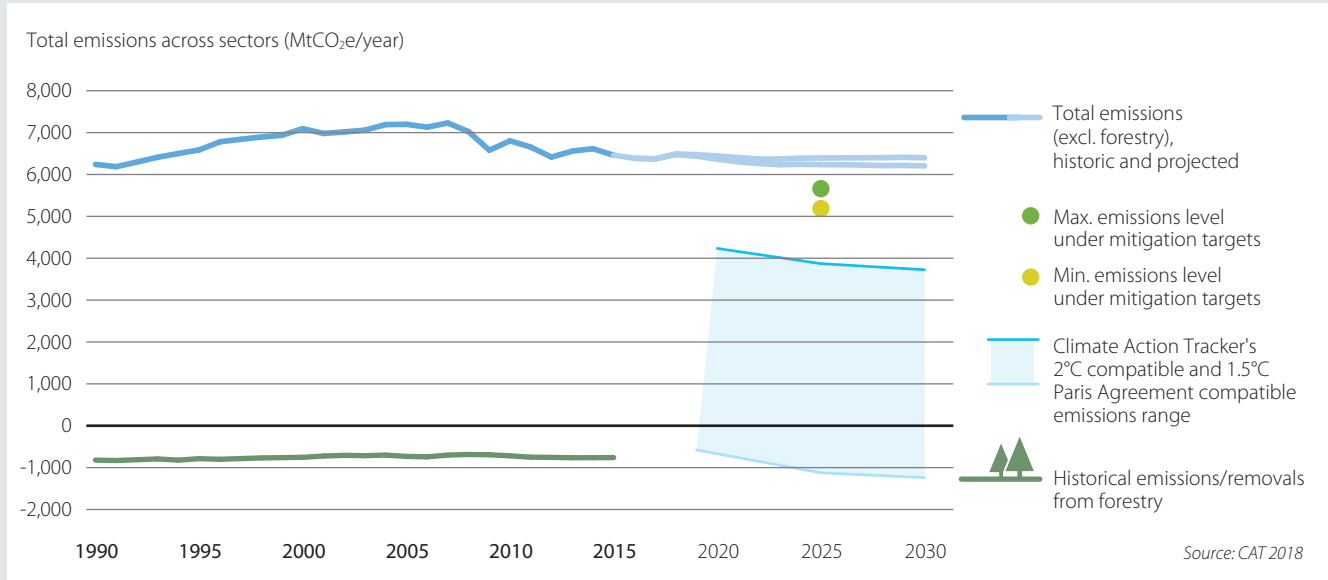
Data from 2015
Source: PRIMAP 2018



CLIMATE POLICY

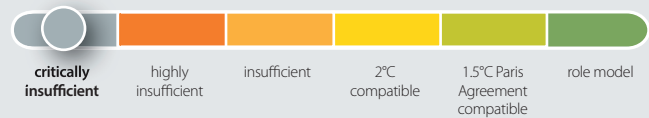
UNITED STATES

COMPATIBILITY OF CLIMATE TARGETS WITH THE PARIS AGREEMENT²



The CAT rates the US NDC “critically insufficient”, the lowest rating, based on the Trump administration’s plan to withdraw from the Paris Agreement. The administration is stalling the uptake of solar power and announced it would revoke fuel efficiency standards for vehicles. However, more than 2,500 non-state actors have pledged to “support climate action to meet the Paris Agreement” through the “We Are Still In” campaign, which could take the US at least halfway towards meeting its NDC.

CLIMATE ACTION TRACKER (CAT) EVALUATION OF NDC²



NATIONALLY DETERMINED CONTRIBUTION (NDC)

The US administration has signalled its intent to withdraw from the Paris Agreement and stalled the implementation of its NDC.

MITIGATION	
Targets	<p>Overall targets Intends to achieve an economy-wide target of reducing its GHG emissions by 26%-28% below its 2005 level in 2025 and to make best efforts to reduce its emissions by 28%</p> <p>Coverage 100% of emissions covered (all sectors and gases)</p>
Actions	Actions specified (sectors: energy, transport, buildings, waste)

ADAPTATION	
Targets	Not mentioned
Actions	Not mentioned

FINANCE	
Conditionality	Not applicable
Investment needs	Not specified
Actions	Not mentioned
International market mechanisms	At this time, the United States does not intend to utilise international market mechanisms to implement its 2025 target

Source: own compilation based on UNFCCC 2018



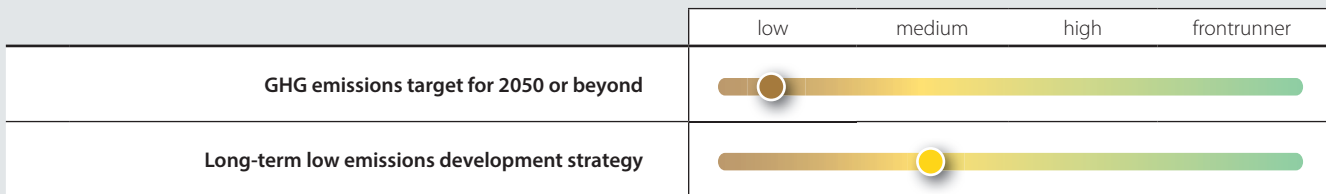
CLIMATE POLICY

UNITED STATES

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.

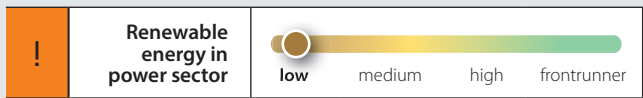
Legend:
low No action
medium Some action
high Significant action and a long-term vision
frontrunner Significant action, and a long-term vision that is compatible with 1.5°C
 ! most important measures based on share of emissions and political relevance



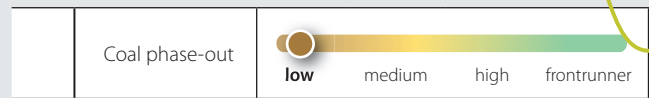
The US submitted a mid-century emission strategy in 2016 to the UNFCCC. The strategy explores possible pathways to reduce

emissions by 80% by 2050 from 2005 levels but does not set interim or sectoral targets.

POWER

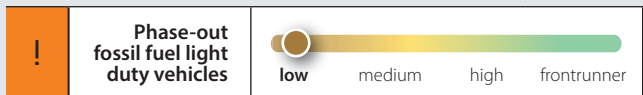


The US has no 2050 target for renewable energy. In 2018 the government introduced tariffs on the import of solar panels that led renewable energy companies to freeze or cancel investments of around US\$2.5bn.



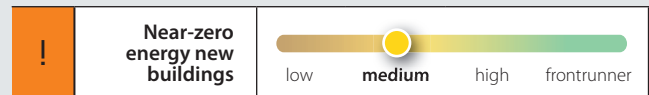
The US government has no plans to phase out coal in power generation. The Trump administration vowed to revive the coal industry, and has started processes in 2017 to repeal the Clean Power Plan of the previous government.

TRANSPORT



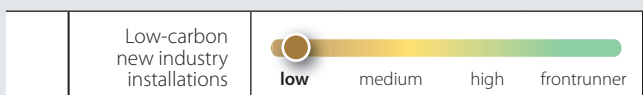
The US has no target to phase out fossil fuels in transport but aims to purchase 50% electric vehicles for its government fleet. In 2018, the government rejected stricter fuel efficiency standards for vehicles introduced by the previous government that aimed to double fuel efficiency of new vehicles by 2025. The adjusted regulation will no longer require cars and trucks to become more fuel-efficient every year from 2020 onwards.

BUILDINGS



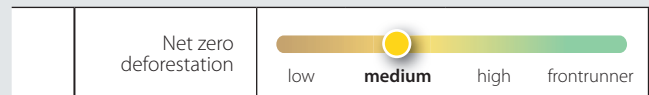
Most states have building codes but these are mostly weaker than the national model code. The US Better Building Initiative aims to make buildings 20% more energy-efficient by the 2020s but no strategy for near zero-energy buildings exists.

INDUSTRY



At federal level, voluntary energy efficiency certification for industry exists but no mandatory standards. Several states have emission trading schemes in place.

FORESTS



The 2015–2020 Forest Plan aims to sustain the country's forests but no quantitative national target exists.

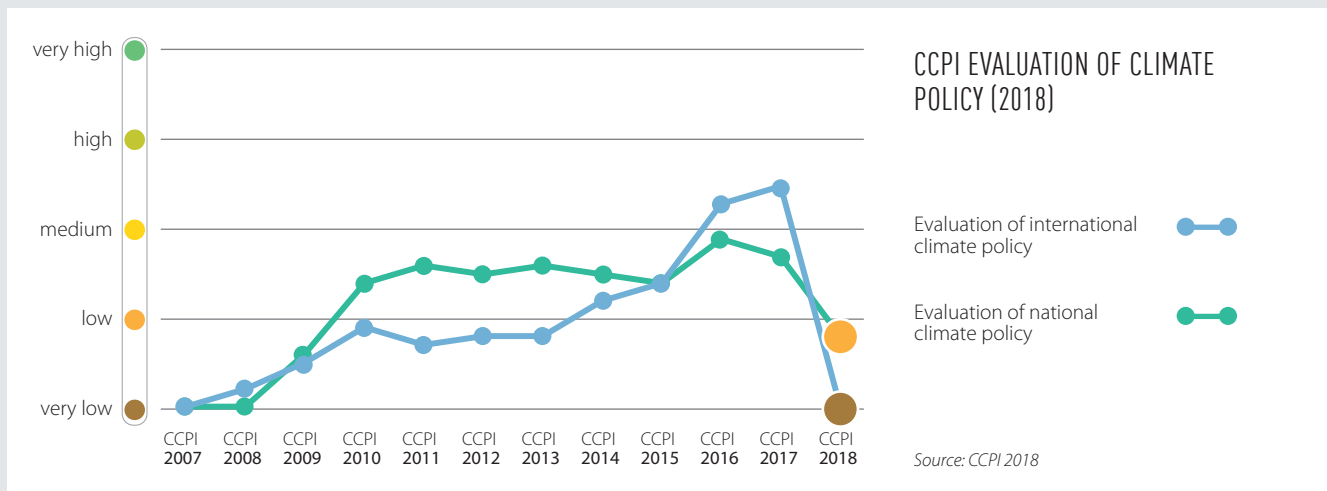
Source: own evaluation

 CLIMATE POLICY

UNITED STATES

CCPI EXPERTS' POLICY EVALUATION¹⁸

US experts rate both its national and international climate policy performance as very low. Due to the withdrawal from the Paris Agreement by the Trump administration, experts scored international performance as very low. They criticise the dismantling of the Clean Power Plan. They note that climate action takes place at subnational level and the federal government kept up efforts from the previous administration, but no national plan to tackle climate change exists. Therefore the experts rated the national performance slightly better, but still very low.



JUST TRANSITION¹⁹

Federal climate policy has had little certainty following President Trump's stated intention to withdraw from the Paris Agreement. His argument to "end the war on coal" is to save jobs, but the administration's rejection of climate science stymies any discourse on a just transition.

Activity and discourse varies at state level. States in the Appalachian coal region (eg. Kentucky, West Virginia) established the Power Plus initiative in 2015 to support economic diversification, including worker retraining and benefits. By contrast, California currently has no official policy to manage its transition away from oil.

American unions pioneered the just transition concept, and continue to campaign for its principles. In 2017 the AFL-CIO union resolved to fight for workers' interests, support clean energy technology "with a focus on ensuring high labour standards", and to "continue to urge the United States to remain in the Paris Agreement".



FINANCING THE TRANSITION

UNITED STATES

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

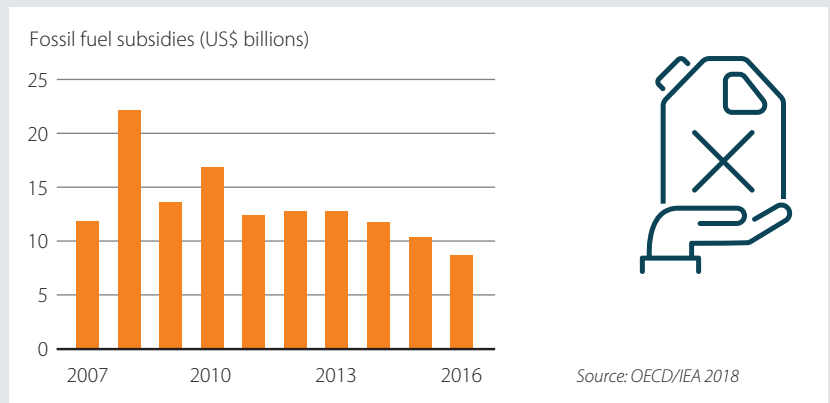
The California Department of Insurance (CDI) and Washington State Office of the Insurance Commissioner (OIC) have both welcomed the TCFD recommendations, but no engagement with TCFD at the federal level was found.

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.

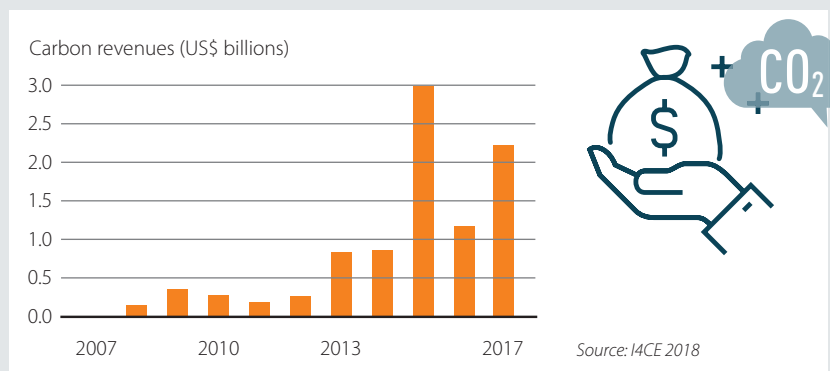
FOSSIL FUEL SUBSIDIES

In 2016, the US provided US\$8.7bn in fossil fuel subsidies (from US\$11.8bn in 2007). Between 2007 and 2016 subsidies were lower (US\$0.001) than the G20 average (US\$0.003) per unit of GDP. Subsidies were provided through direct budget support and tax exemptions, primarily targeting consumption (78%). The largest subsidy is the home energy assistance programme for low-income households (US\$2.2bn).



CARBON REVENUES

From 2008 to 2018, three subnational emissions trading schemes began, covering 20% to 85% of emissions, priced at US\$4 to US\$15/tCO₂. California generated US\$2.2bn in 2017 (other estimates are missing). From 2008 to 2017, carbon revenues were lower (US\$0.0001) than the G20 average (US\$0.0003) per unit of GDP. Washington and Oregon states aim to introduce new carbon pricing schemes in 2019–2021.



FINANCING THE TRANSITION




UNITED STATES

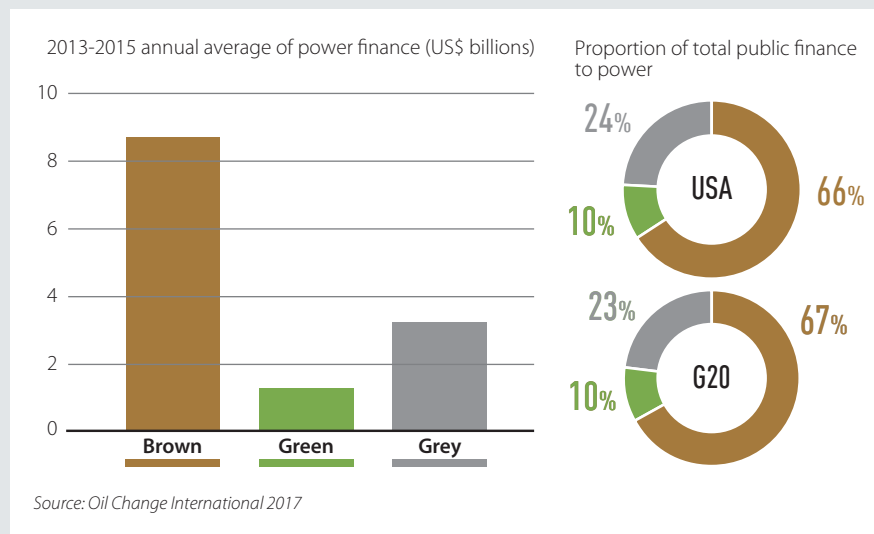
PUBLIC FINANCE

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, US public finance institutions spent an annual average of US\$8.6bn brown, US\$1.3bn green and US\$3.2bn grey financing in the power sector, domestically and internationally. The largest transactions were a US\$7.5bn US Export-Import Bank guarantee for thermal power generation equipment in Egypt, and a US Department of Energy US\$6.5bn guarantee for the US-based Vogtle nuclear power plant.

-  **brown**
coal, oil and gas projects (and associated infrastructure)
-  **grey**
large-scale hydropower, biofuels, biomass, nuclear, incineration, transmission, distribution, storage, energy efficiency, other general electricity support
-  **green**
renewable energy projects (excluding grey financing)



PROVISION OF INTERNATIONAL PUBLIC SUPPORT

From 2015 to 2016 the US did not provide a Biennial Report to the UNFCCC, though previously it was the fifth largest G20 bilateral climate finance contributor. It remains the largest G20 contributor to the multilateral climate funds (29% of the G20 total), assuming it honours the US\$3bn commitment to the GCF of which US\$1bn was provided under the Obama administration; further transfers have been halted by the Trump administration. While the US channels international public finance towards climate change 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
428.66	21%	60%	19%

BILATERAL CLIMATE FINANCE CONTRIBUTIONS²³

Annual average contribution (mn US\$, 2015-2016)	Theme of support			
	Mitigation	Adaptation	Cross-cutting	Other
US DID NOT SUBMIT A REPORT				

Source: Country reporting to UNFCCC



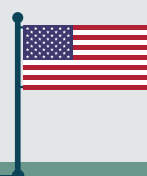
ANNEX



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

