

# Rate of global decarbonisation slows to lowest level since 2011

Following four years of moderate progress, the rate of global decarbonisation has slowed to its lowest level since 2011, according to PwC UK's latest Low Carbon Economy Index (LCEI).



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Last year, global GDP grew by 3.7%. Although the global economy is getting more energy efficient, overall energy consumption rose by 2.9% with the resurgence in the growth of energy intensive industries such as construction and steel across rapidly industrialising economies, including China, India and Indonesia. The extreme heat and cold weather patterns seen globally last year also led to a growth in demand for electricity and gas for heating and cooling. This is a stark warning of the potential knock on impacts of more unpredictable weather patterns and events associated with climate change.

South Africa's GDP only grew by 0.6% in 2018. Energy related emissions also grew by 0.6% indicating that economic growth has not been decoupled from emissions. Coal remains the primary source of energy in South Africa, constituting 71% of the fuel utilised in 2018. The fuel mix in South Africa has remained largely unchanged since the introduction of oil and nuclear in 1999. Only 2.3% of this mix is made up by renewables whereas the global energy system has a 12% mix of renewables. The global renewable energy sector grew at the highest rate since 2010 at 7.2% but the increase in energy demand continues to be met by greater consumption of fossil fuels, which increased global emissions by 2% in 2018. This is the fastest rise in emissions since 2011.

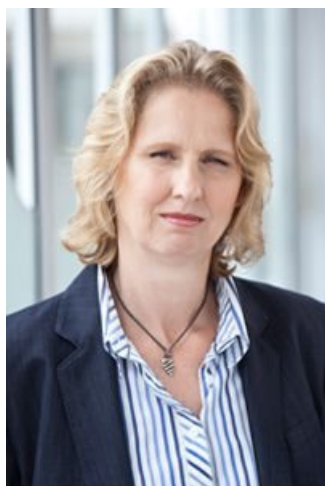
## Achieving national targets

Even though there was an increase in global emissions in 2018, the carbon intensity of the global economy fell by 1.6%. However, this is less than half the decarbonisation rate witnessed in 2015 (of 3.3%), when over 190 governments committed to the Paris Agreement. If this rate of slow decarbonisation continues, countries will be unable to achieve their own national targets as part of the agreement, or the more ambitious global goal of limiting warming to well below 2°C, adopted in Paris. The analysis estimates that the average decarbonisation rate for the G20 economies needed to meet their own National Determined Contribution targets (NDCs), that form part of the Paris Agreement, is 3% per year to 2030 almost double the 2018 global decarbonisation average in 1.6%.

South Africa has the highest carbon intensity rate, at 519 tCO<sub>2</sub>/\$m GDP, of all the G20 countries. This is 2.05 times the global carbon intensity rate. During 2018, South Africa's CO<sub>2</sub> from energy-related emissions alone were 421.1mT. At this rate reaching the Paris Agreement target of 398 – 614 MtCO<sub>2</sub>e over 2025-2030 for all emission sources seems unlikely.

## Upping decarbonisation rate

To meet the Paris Agreement goal of limiting warming to well below 2°C, PwC's analysis estimates that the global economy will need to reduce its carbon intensity by 7.5% every year, from now until 2100. This is nearly five times faster than the current decarbonisation rate. To gain a fair chance of limiting warming to 1.5°C – to prevent reaching the point that carbon within the Earth's frozen permafrost is released and begins an unstoppable negative feedback cycle of global change - means hitting a 11.3% decarbonisation rate, seven times the current rate.



Jayne Mammatt, director of sustainability and climate change at PwC South Africa

Jayne Mammatt, director of sustainability and climate change at PwC South Africa, said: "It's worrying that progress on climate seems to have stalled. There's a huge gap between the rhetoric of the 'climate emergency' and the reality of policy responses around the world - and in South Africa - which have been inadequate. The level of ambition is set too low to effect the change we need. This is increasingly challenging for companies to manage, as they deal with both extreme weather impacts and growing climate policy risk. They are having to balance continued demand for business as usual as well urgent calls for disruptive change."

Mammatt continues: "These results should be another wake up call. For all the progress that has been made recently in building public engagement, business leadership, and political commitments, decarbonisation has stalled. The speed of transformation that we need for our power and transport systems, our cities, the way we use land, and the way we produce and consume, is now that much more daunting. But it is possible. New technologies are already showing how they can accelerate change and reshape sectors: from enabling clean decentralised grids, to electrifying and optimising mobility, or increasing land productivity and protection. But we need ambitious policy to drive this change and investment, at pace and scale."

### The 2019 Low Carbon Economy Index also reveals that:

- In 2018, Germany was the best performer in the G20 and led the Low Carbon Economy Index with a decarbonisation rate of 6.5%, reducing consumption of coal, oil and natural gas and growing solar and wind energy by 8.7%.
- The other top performers were Mexico, France, Italy and Saudi Arabia - all reduced emissions while growing their economies.
- The poorest performers were those that demonstrated increases in energy-related emissions, and little to negative change in carbon intensity.

Mammatt concludes: "Concerns about the impact of climate change continue to climb the global, social and corporate agenda, with 2019 marking a significant shift in profile and engagement on these issues. Countries, including the UK, France, Canada and Ireland have declared a 'climate emergency' in their respective jurisdictions. How that translates into raising national level action on climate ambitions to close the gap between the goals of the Paris Agreement and our current pathway is yet to be seen. However, it does raise questions as to how we will remain globally competitive in a low carbon global economy."