Press Release

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Global decarbonisation rate doubles in 2014 but threat of regulation looms large for business in climate deal

- *Annual PwC analysis finds the steepest decline in carbon intensity since 2000*
- *Despite ambitious national emission reduction targets report warns that business needs to build carbon costs and regulation into business decisions, with the power, transport and finance sectors particularly affected*
- *UK tops G20 index with 10.9% year on year decline*

London, 12 Oct 2015 -- 2014 suggests signs of a turning point in major international economies reducing their carbon emissions per unit of GDP, according to new analysis by PwC of the G20 economies.

This seventh annual *Low Carbon Economy Index* models major economies' carbon intensity - the measure of energy related greenhouse gas emissions per million dollars of GDP. It shows carbon intensity has fallen by 2.7% in 2014, the steepest decline in seven years of the PwC analysis. Global growth of 3.2% in 2014 was achieved with only 0.5% growth in energy related emissions.

Breaking the link between emissions and economic growth – or 'uncoupling' – is essential to avoid the worst impacts of climate change. With less than 50 days to go before Governments meet in Paris to agree how to tackle climate change, the analysis indicates positive signs of 'uncoupling'.

- 2014 is the first year that more than one country (UK, France, Germany and Italy as well as the EU as a whole) achieved a decarbonisation rate of 6.3% or above, the rate required globally to limit warming to two degrees.
- The **UK** achieves a record breaking 10.9% reduction in carbon intensity – the result of a strong economy, lower coal use and a warmer winter. **China**, the world's largest emitter, is the best performing non-EU country in the table, with a decarbonisation rate of 6%. **Australia** has slipped from the top spot, but it still recorded a decarbonisation rate of 4.7%.
- Carbon intensity actually rose in five countries: **South Africa, India, Brazil, Saudi Arabia** and **Turkey**.

Leo Johnson, PwC sustainability and climate change partner, comments:

"What we are seeing is the first signs of the decoupling of growth from carbon. The trend in Chinese emissions looks like it's starting to turn, and renewables are on the up. But we're not there yet. And the Paris pledges don't get us there either. The real tipping point is when renewables hit cost parity with fossil fuels."

Despite progress by some countries, globally, the target level of reductions in greenhouse gas emissions per unit of GDP has been missed for the seventh successive year. Rapid and sustained decarbonisation of around 6.3% is needed every year globally in order to limit global average temperature rise to 2°C.

In the lead up to Paris, governments have submitted targets and plans on how they will tackle emissions. Known as INDCs, these targets imply a global average decarbonisation rate of 3% per year – more than doubling the business as usual rate since 2000. These national plans are expected to drive action in the power, transport and finance sectors.

Many countries have put regulation of coal front and centre of their plans and are setting targets for renewables and low emissions vehicles. A significant shift in investments will be required to achieve these targets and build cleaner coal technology such as carbon capture and storage. The financial services sector will need to mobilise investors and create new financial products that fund and insure these projects. The automotive sector could expect government support into low or zero carbon next-generation vehicles in countries such as Japan and South Korea, or face more stringent fuel efficiency targets in others.

Jonathan Grant, director, PwC sustainability and climate change director, comments:

"CEO engagement on the Paris talks is mixed, but if there's anything they should focus on, it's the national plans proposed in the lead up to Paris. The Paris targets will have profound implications in terms of national regulation, investment and business planning. There's a big focus on targets but little on getting investment needed to achieve them."

While recognised in the report as a positive step change in decarbonisation, these Paris targets, if they are achieved, would only limit warming to 3°C by the end of the century.

Jonathan Grant adds

"Despite being a step change, the Paris targets fall short of the 2°C goal, so the Paris agreement will need a process to review national progress and to raise ambition in future."

For an embargoed copy of the report please contact rowena.mearley@uk.pwc.com

Notes

1. Carbon budget: The target is an estimate of how much countries need to reduce their energy related emissions by, while growing their economy, in order to limit global warming to 2°C. 2°C of warming is the limit scientists agree is needed to ensuring the serious risks of runaway climate change impacts are avoided.
2. 2014 is the first year we have seen more than one country achieve a rate of 6% or above, with five countries reaching this threshold, as well as the EU as a whole. The **UK** leads the index with a remarkable 10.9% decarbonisation. **France** was not far behind, and actually reduced carbon emissions by slightly more than the UK but experienced slower GDP growth. **Italy** and **Germany** posted very strong decarbonisation rates. Although Italy's emissions fell rapidly, its economy also contracted slightly. Germany however achieved fairly rapid emissions reductions as well as economic growth of 1.6%. **China** also recorded a rapid decarbonisation rate. And while **Australia** has slipped from the top spot, it still recorded a decarbonisation rate of 4.7%.
3. Under the UN climate negotiations process, all countries are expected to put forward pledges (Intended Nationally Determined Contributions or INDCs) with the collective aim of reducing greenhouse gas emissions globally to limit the potential for global warming to 2°C by 2100.

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4. A 3°C world is one in which the IPCC's Fifth Assessment Report describes potential impacts including ocean acidification and frequent heatwaves and drought challenging global food supply and trade with knock on effects for migration and conflict. Furthermore there is potential that rising numbers of species face extinction, and more frequent extreme weather events will cause infrastructure damage, loss of life and business disruption
5. About The Low Carbon Economy Index (LCEI): The LCEI model combines energy-related carbon dioxide emissions with historic and projected GDP data, and the IPCC's carbon budgets. The model covers energy and macroeconomic data from individual G20 economies, as well as world totals. Details of our model structure are available the Appendix of the LCEI report. The analyses of the Paris targets are based estimates of the decarbonisation rates implied by the INDCs submitted to UNFCCC and include the full national inventory of emissions (i.e. emissions from land use change, forestry, and industrial process).
6. PwC Low Carbon Economy Index 2015

2013-2014					Trend this century	
Country	Change in carbon intensity 2013 – 2014	Carbon intensity (tCO_2/$m GDP) 2014	Change in energy related emissions 2013 – 2014	Real GDP growth (PPP) 2013 – 2014	Annual average change in carbon intensity 2000 – 2014	Annual average change in GDP 2000 – 2014
World	-2.7%	306	0.5%	3.3%	-1.3%	3.7%
G7	-3.1%	266	-1.5%	1.6%	-2.0%	1.4%
E7	-3.4%	378	1.8%	5.4%	-1.1%	6.7%
UK	-10.9%	173	-8.7%	2.6%	-3.3%	1.7%
France	-9.1%	124	-8.9%	0.2%	-2.7%	1.1%
Italy	-7.8%	151	-8.2%	-0.4%	-2.2%	-0.1%
Germany	-7.1%	201	-5.7%	1.6%	-2.0%	1.0%
EU	-6.7%	187	-5.4%	1.3%	-2.4%	1.2%
China	-6.0%	515	0.9%	7.4%	-2.0%	9.8%
Australia	-4.7%	342	-2.3%	2.5%	-2.4%	3.0%
Mexico	-3.5%	219	-1.5%	2.1%	-0.2%	2.1%
Korea	-3.1%	419	0.1%	3.3%	-1.3%	4.0%
Japan	-3.0%	273	-3.1%	-0.1%	-0.7%	0.7%
Canada	-2.4%	366	0.1%	2.5%	-1.7%	2.0%
Russia	-2.2%	409	-1.6%	0.6%	-3.6%	4.1%
Argentina	-1.7%	191	-1.2%	0.5%	-0.9%	3.6%
US	-1.6%	317	0.8%	2.4%	-2.3%	1.8%
Indonesia	-1.4%	193	3.5%	5.0%	-0.6%	5.4%
South Africa	0.2%	612	1.7%	1.5%	-1.6%	3.1%
India	0.7%	268	8.2%	7.4%	-1.4%	7.2%
Brazil	3.6%	155	3.8%	0.1%	0.0%	3.2%
Saudi Arabia	4.0%	386	7.6%	3.5%	0.0%	5.2%
Turkey	4.4%	224	7.4%	2.9%	-0.6%	4.0%

Key: Top 5 Bottom 5

About PwC

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