

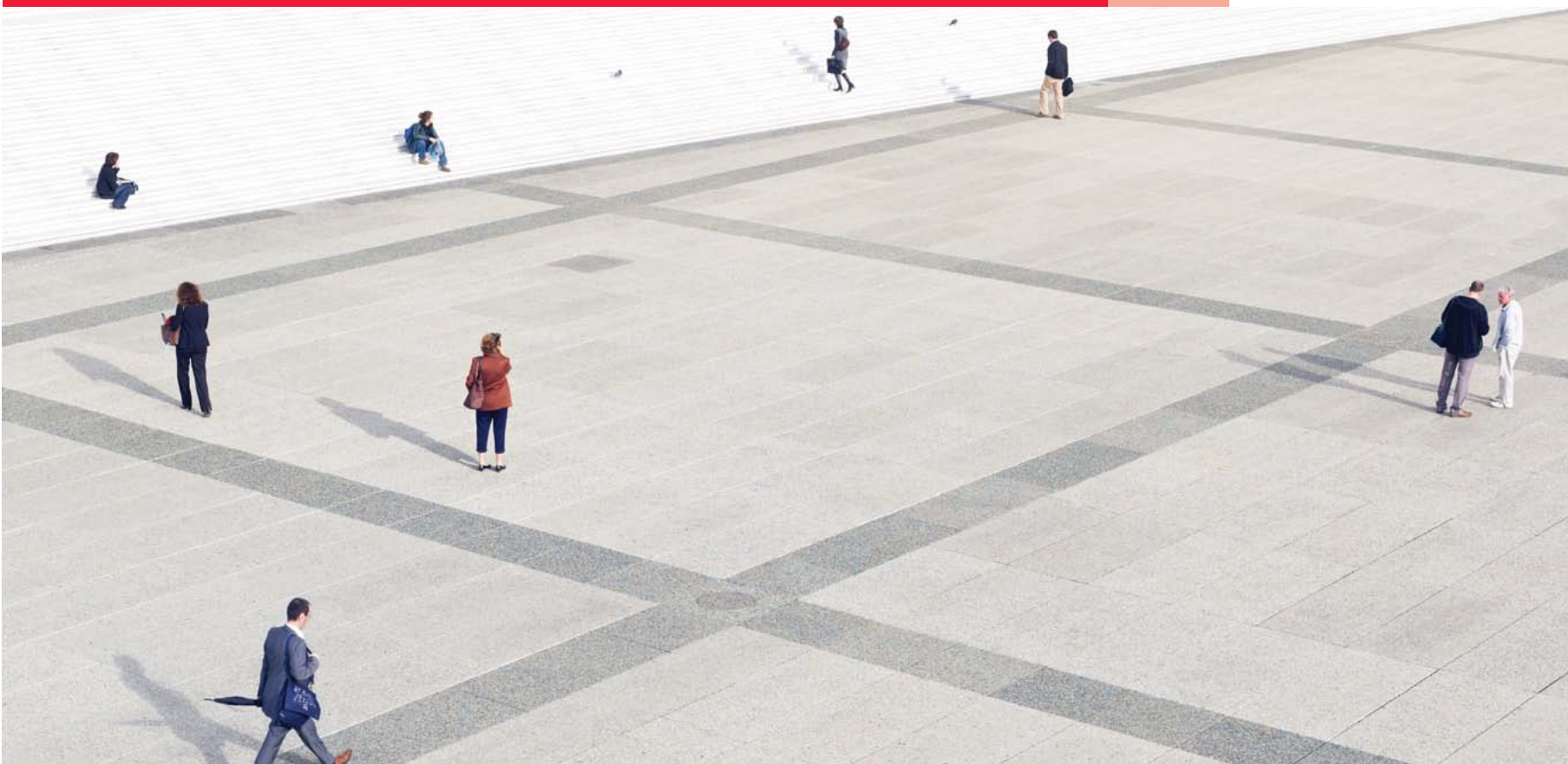
Global Green Policy Insights

*Your environmental tax
and regulation update*

1 December 2011

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- ▶ California approves cap-and-trade scheme
- ▶ Australia passes Carbon Price legislation
- ▶ China introduces National Resource Tax





Mark Schofield

Global Leader,
Sustainability and Climate
Change Tax Network

Welcome to the first edition of Global Green Policy Insights, a new PwC publication designed to keep you up-to-date with the latest in environmental tax and regulation policy developments around the world. I hope you will also find it to be a useful tool in understanding what many of these developments mean for your business both locally and globally.

This week governments from around the world have gathered in Durban for the annual United Nations climate change summit. Negotiations are expected to centre on the future of the [Kyoto Protocol](#) which is set to expire next year, and on the [financing challenges](#) associated with the transition to a low carbon economy. But the looming threat of another financial crisis may mean that the significance of any decisions is downplayed, and the prospect of global agreement less promising, with domestic political agendas taking priority.

We have seen in recent years that lack of progress at the global level does not signal a slow-down in the development of national legislation to tackle climate change and resource scarcity. In fact, the trend is the opposite. In the past few months alone, [China](#) announced, and introduced, a National Resource Tax, [Australia](#) passed legislation for a carbon price and [California](#) approved the introduction of a state-wide emissions trading scheme.

The [United Kingdom](#) announced changes to its subsidies for renewable technologies, [South Africa](#) revealed its climate change response policy and Europe prepares for more phasing-out of [nuclear power](#). So while we are hopeful the outcome of Durban is a positive one, we can expect that businesses will continue to operate under a complex patchwork of environmental tax and regulation policies in different territories.

The PwC Sustainability and Climate Change Tax Network, made up of more than 30 countries around the world, collaborates to assist clients to understand their global exposure to environmental taxes and regulations, manage compliance obligations and identify opportunities to claim incentives and other funding. This week, members of our network are also on the ground in Durban, providing up to the minute news and views on the United Nations climate change negotiations which you can follow on the [PwC Sustainability and Climate Change blog](#). An in-depth analysis will follow in the next edition of Global Green Policy Insights.

I hope you enjoy reading this first edition of Global Green Policy Insights. Our plan is to produce this newsletter every two months, and we look forward to sharing the next issue with you early in the New Year, and in the meantime would welcome from you any feedback.

Best wishes

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In this issue



Europe, Middle East and Africa

European Union

Aviation covered by the EU Emissions Trading Scheme from 2012

Despite ongoing resistance from the international community, the European Union (EU) looks set to include the aviation sector in its Emissions Trading Scheme (ETS) from 1 January 2012. Under existing law, all airlines flying in or out of airports in the region will be required to comply with the rules of the Scheme and surrender permits to cover carbon emitted on those routes. In the first year, airlines will receive on average 85% of their permits free, reducing to 82% in 2013.

Inclusion of aviation in the ETS has received strong opposition from a large number of non-EU countries, and in November this year twenty six nations, including China, Russia and the United States, rallied together in a formal protest against the European Commission.

In parallel, the United States has been pursuing its own attempts to ensure its airlines are not subjected to the Scheme. The Air Transport Association of America and two of its member airlines have taken their case to the European Court of Justice, arguing that the inclusion of non-EU airlines in the Scheme violates international aviation agreements and international law. Although not legally binding at the Court, the Advocate General of the European Court of Justice issued an initial opinion calling the lawsuit “unconvincing”.

The United States has also attempted to introduce legislation that would make it illegal for its airlines to participate in the Scheme. Bills to this effect have been passed by the House of Representatives, however uncertainty remains as to whether they will ever clear the Senate.

Spot carbon units: the new financial instrument

The European Commission is proposing to reclassify spot carbon contracts traded in the EU ETS as financial instruments. The draft new rules which were announced in October propose to extend the scope of the EU’s Markets in Financial Instruments Directive (Mifid) to include spot carbon units. Carbon futures are already covered by Mifid and the Market Abuse Directive.

The move is seen as an effort by the European Commission to cover an existing gap in the regulation of the spot carbon market, which currently accounts for approximately 10% of trading, and stamp-out fraud which was found to be rife earlier this year.

The proposals are subject to approval by the European Parliament and Council of EU member states before becoming binding.

What this means for you

Richard Gledhill – PwC Global Leader for Climate Change and Carbon Market Services – comments “the carbon regulatory changes will add costs and administrative burdens for EU ETS market participants at a time when the market is already in the doldrums, facing oversupply as a result of the economic downturn and regulatory uncertainty over the Kyoto Protocol.”

Europe, Middle East and Africa



Nuclear phase-out strengthens case for EU power grid

Triggered by the Fukushima disaster in Japan, the German Government announced in May this year that all its nuclear power plants will be shut-down by 2022. Seven of the country's oldest plants were closed immediately. Last year, nearly one quarter of Germany's electricity consumption was from nuclear energy.

Belgium has followed suit, announcing in October this year plans to shut-down its nuclear facilities by 2025. Belgium will close its three oldest nuclear power plants by 2015, with the remaining four to be phased-out over the following decade. Until now, nuclear power has provided the country with over half of its energy supply. The cross-party agreement to phase-out nuclear is conditional on Belgium finding sufficient alternative energy supplies to ensure that no shortages result.

In a paper debated by EU Energy Ministers, the European Commission has stressed that the phase-out of nuclear power across parts of Europe strengthens the case for a coordinated approach to energy generation

across the EU. The phase-out of nuclear will place increased demand on national grids, and to avoid preventable black-outs an EU power grid should be considered.

What this means for you

Ronan O'Regan – Director, PwC United Kingdom – comments “the decision by governments to phase-out nuclear has already exerted some upward pressure on power prices for consumers, and as European power markets become more interconnected, the impact of plant closure decisions in one country are likely to feed through to neighbouring countries also. Security of supply requirements and the achievement of carbon reduction targets later in the decade will also likely become cause for concern. On a positive note, while the withdrawal from nuclear will prove a boost for thermal plant and particularly gas, it will also act as a driver for additional renewable capacity, particularly if carbon reduction targets are to be achieved.”

Europe, Middle East and Africa

Eastern Europe

Romania and Ukraine banned from trading Kyoto carbon units

Romania and Ukraine have both been suspended from trading Kyoto carbon units (Emission Reduction Units (ERUs)), after being found to have breached Kyoto Protocol rules in prior periods. The decisions were handed down by the Compliance Committee of the United Nations Framework Convention on Climate Change (UNFCCC) and are said to be a consequence of both countries' insufficient disclosure of their national emissions inventories.

The suspension affects the trading powers of the countries' governments, as well as companies covered by the EU ETS. It is speculated that the bans will be lifted next year.

The head of Romania's Environmental Protection Agency resigned in the wake of the suspensions.

World Bank funds development of new carbon markets

Ukraine is the latest country to have been awarded funding under the World Bank's Partnership for Market Readiness (PMR) programme. The PMR programme which was established at the UNFCCC Climate Summit in Cancun last year, supports developing countries to establish domestic carbon trading markets to help combat climate change.

The programme, which so far has provided support to Chile, China, Colombia, Costa Rica, Indonesia, Mexico, Thailand and Turkey, relies on funding from some of the world's richest countries. A total of \$70 million has been pledged to date by Australia, the European Commission, Germany, Japan, Norway, The Netherlands, Spain, Switzerland, the United Kingdom and United States. An additional \$30 million is required if the programme is to meet its \$100 million target which would provide support for projects in fifteen developing nations.

Morocco, Brazil, India, Jordan, South Africa and Vietnam have also expressed interest in applying to join the programme.

Eastern European countries secure free carbon permits

During the third phase of the EU ETS, from 2013 to 2020, most energy-intensive participant companies will be required to purchase more allowances to cover their carbon emissions. Since the introduction of the ETS in 2005, these companies have received the majority of their emission allowances free.

A number of Eastern European companies, however, will escape the tightened rules and continue to receive the majority of their allowances free. It is intended that the move will encourage these companies to refurbish old plants to improve energy efficiency and help avoid the impact of steep increases in energy prices on consumers.

Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Romania, along with other EU members, Cyprus and Malta, are among the countries known to be granted the exemption.

What this means for you

Martin Scott – Director, PwC Czech Republic – comments “this is positive news for energy-intensive ETS participant companies in the region. The challenge for these companies will be how they use this opportunity to improve efficiency and/or gain competitive advantage.”

Europe, Middle East and Africa

France

France sets its eyes on new carbon tax

The French Government is reportedly planning to introduce a one-off carbon levy on the pre-tax revenues of large industrial and energy firms. According to French news source, Le Figaro, the tax is proposed to be in the range of 0.08% to 0.12% and would apply to firms that release over 60,000 tonnes of carbon emissions per year. Further details of the tax have not been released.

French President, Nicolas Sarkozy, last year scrapped the country's proposed carbon tax which would have raised €17 per tonne of carbon emissions.

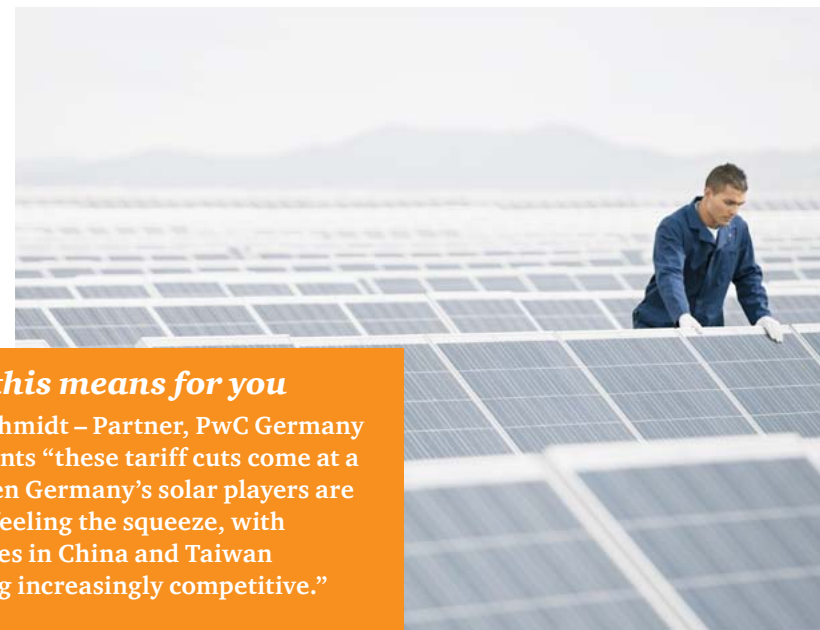
Germany

Germany slashes solar feed-in-tariffs

The German Government confirmed in October a 15% cut to its solar feed-in-tariff scheme, effective 1 January 2012. The cut itself does not come as a surprise, as the country's feed-in-tariff scheme is based on a regression system, meaning the level of support is dependent on the total installations of the prior year. The regression system is designed to better align financial support for new installations with the decreasing cost of technologies.

According to Germany's federal network agency, Bundesnetzagentur, an additional 5,200MW of solar capacity was generated over the last year. This amount of new capacity exceeded the threshold that was required to trigger the 15% cut.

Germany remains the world's largest solar market.



What this means for you

Frank Schmidt – Partner, PwC Germany – comments “these tariff cuts come at a time when Germany's solar players are already feeling the squeeze, with companies in China and Taiwan becoming increasingly competitive.”

Europe, Middle East and Africa

South Africa

South Africa announces National Climate Change Response policy

All eyes have been on South Africa in the lead up to the UNFCCC's COP17 in Durban, so it was timely when the Government released its National Climate Change Response policy just a month before the global negotiations were to take place. According to the Government, the policy which has been six years in the making, provides the country with the roadmap it needs to respond to the impacts of climate change. The policy White Paper is now before Parliament.

The White Paper provides details of the country's mitigation and adaptation objectives and how it plans to achieve these. The adaptation challenge is particularly significant to South Africa as the country, along with the rest of the continent, is highly vulnerable to the impacts of climate change through severe weather events, seasons

change, agriculture output, drought and health. It is therefore not surprising that the Government's goals and plans around adaptation are covered quite extensively in the White Paper. Recognising the need to track progress of its objectives, a Climate Change Response Measurement and Evaluation System is to be developed within the next two years.

Following the release of the White Paper, the Government also announced the introduction of mandatory caps on the emissions of South Africa's top polluters. The caps will likely affect companies in the electricity, fuel, mining and transport sectors and are expected to be introduced over the next two years.

Towards the end of last year, the Treasury released a consultation document on a proposed carbon tax, and a second consultation paper is expected before the end of this year.

South Africa is one of the top twenty emitters in the world, with close to half of the country's emissions coming from its power sector, which is largely reliant on coal. The Government has committed to reductions in emissions from the business-as-usual scenario by 34% by 2020 and 42% by 2025 on condition that it receives finance and technology support from developed countries. These targets are ambitious as the Government continues to face the enormous challenge of a rising unemployment rate, currently sitting at 25%.

What this means for you

Jayne Mammatt – Associate Director, PwC South Africa – comments “while the targets are ambitious and the response strategy adopts a range of mitigation measures – both in the form of incentives and punitive measures – the Government has also made it clear that this will not come at the expense of economic growth and socio-economic development in the country. This is a clear signal to business that, although there are risks to be managed, there is opportunity available in the form of building a low carbon economy for South Africa.”

Europe, Middle East and Africa

Denmark

New Danish Government reveals ambitious green targets

Within weeks of winning the federal election, Denmark's centre-left Government announced its revised and ambitious emission reduction targets. The country's first female prime-minister, Helle Thorning-Schmidt, revealed plans to reduce the country's emissions by 40% from 1990 levels, and increase the share of renewable energy supplies to 50%, both by 2020. Details of how the Government plans to achieve these targets are expected to be unveiled in 2012.

Denmark's new three-party coalition Government was elected to power in September.

Switzerland

Negotiations underway to link Swiss and EU emissions trading schemes

The Swiss Government and European Commission have entered into talks to link their emission trading schemes. In existence since 2008, the Swiss ETS is a voluntary scheme which prices the carbon emissions of around 400 firms. The comparatively small size of the market and oversupply of allowances, however, means that liquidity of Swiss emission allowances has remained relatively low.

While the Swiss scheme is unlikely to join the EU ETS, it is thought that allowances may become tradable between the markets. If negotiations between the Switzerland and the EU are successful, it is anticipated that the schemes could be linked as early as 2013.



Russia

Russia introduces green building tax incentive

Russia has introduced legislation that means taxpayers are entitled to a three-year property tax exemption for new facilities that have high energy efficiency and are included on a Government-approved list, or have a high energy efficiency rank.

Europe, Middle East and Africa

United Kingdom

Green tax breaks for UK heavy emitters

In the Chancellor's Autumn Statement, which was delivered to the House of Commons on 29 November, the UK Government revealed its plans to ease the burden on the country's energy-intensive industries and prevent them from relocating activities outside of the UK.

The measures, worth £250 million, include an increase in the Climate Change Levy discount to 90%, and a £100 million compensation package for energy-intensive industries most impacted by the Carbon Floor Price and other green tax and regulation policies. Both are expected to be introduced from April 2013, and are subject to consultation and EU State Aid considerations. The Climate Change Levy is a tax on the supply of energy to industrial and commercial users, and the Carbon Floor Price is effectively a tax on fossil fuels used to generate electricity.

In accordance with its Climate Change Act, the UK Government is legally bound to reduce emissions by 35% and 50% from its 1990 levels by 2022 and 2025 respectively.

Shake-up for UK's Renewable Obligation scheme

The UK Government launched in October its Renewables Obligation (RO) Banding Review, which outlines its plans to rebalance the level of funding available to the country's renewable technology sectors. The consultation document has stirred a mixed response from technology developers.

Of the major technologies, the banding for offshore wind is proposed to remain the same until 2015, before support is gradually reduced by 5%. This offers an incentive to developers who can have projects ready by this time and focuses attention on medium term cost reduction. The onshore wind banding seems to reflect a compromise solution between developers trying to maintain current returns and government looking to drive down the overall cost of onshore wind. Support for onshore wind looks set to be reduced by 10% from 2013.

The reaction to the banding for biomass has been mixed, with disappointment for some large scale dedicated biomass projects where a significant increase in support has been expected. Whilst cuts to waste, landfill gas and hydro-electric appear to be the largest in terms of percentage, the impact on deployment of these technologies is not expected to be significant.

Of the minor technologies, support for wave and tidal is set to more than double, which is good news for these sectors and would realign discrepancies between projects in Scotland, England and Wales.

The Department of Energy and Climate Change defended the shake-up of RO bandings, saying that funding can now be directed to where it is needed most. The Government appears confident that the redistribution of funding will mean the UK will be 70% on its way to meet its 2020 target of generating 15% of its energy from renewable sources.

What this means for you?

Ronan O'Regan – Director, PwC United Kingdom – comments “the announcement as broadly positive for the renewable sector with some technology developers likely to be feeling more optimistic than others. While it is a step in the right direction to encourage UK manufacturing in the offshore sector, there are still other uncertainties to be resolved, such as, overall cost levels, grid access and capital availability.”

Europe, Middle East and Africa

Future of UK solar industry not looking so bright

The Government caused outrage when it announced in October cuts of more than 50% to feed-in-tariffs for domestic and small-scale solar installations. The cuts will affect installations that start operating on or after 12 December this year. According to the Government's Climate Change minister, the cuts are necessary due to the plummeting costs of solar.

The drastic cuts come just eighteen months into the planned five-year scheme, which has already faced one set-back with the Government introducing an unexpected cap on the capacity of eligible solar installations. The cap was introduced after an early review of the programme found that large-scale, stand-alone solar farms were springing up across the country, causing concern that the Government's £860 million renewable subsidies budget would be chewed up by these developments, rather than the households and small businesses for which the scheme was intended.

The latest cuts have angered installers, manufacturers and developers of solar technologies, who are frustrated by what they see as inconsistent policy-making. The move has generated widespread concern for the future of the solar industry in the UK.

Renewable Heat Incentive gets the go-ahead

The Government confirmed in October the introduction of its long-awaited Renewable Heat Incentive (RHI) scheme. The RHI scheme, designed much like the Government's solar feed-in-tariff, is intended to provide financial support to eligible installations that generate heat from renewable sources. Initially the scheme will be targeted at non-domestic installations, however, it will later be extended to include domestic installations, as well as a broader range of technologies.

Approval of the RHI scheme was delayed as the Government awaited approval of the programme under the EU State Aid rules. In order to comply with the State Aid rules, the level of support available to large-scale biomass installations with over 1MW of capacity has been cut to almost one third of the planned rate.

UK backs out of £1bn Carbon Capture Storage project

The UK Government has withdrawn £1 billion support for a major Carbon Capture and Storage (CSS) project in Scotland, citing technical difficulties and a failure to reach an agreement with the power company developer.

The project at the Longannet coal-fired power plant would have been the country's first commercial-scale CCS project. CCS is a process that captures, transports and stores underground, emissions from large industrial plants using fossil-fuels.

While all components of CCS are proven technologies, the entire process remains unproven on a commercial scale. According to the Global CCS Institute, there are currently nine projects incorporating CCS around the world, in the United States, Europe, Canada and North Africa.

The move by the UK Government to withdraw support for the Scottish project follows a number of other set-backs and postponements to CCS projects around Europe, raising queries as to the future role of CCS in global efforts to combat climate change.

What this means for you?

Jonathan Grant – Director, PwC United Kingdom – comments “despite the setback with Longannet, there is the prospect that the £1 billion can now be used to support several other UK CCS projects that are currently applying for European funding.”

Europe, Middle East and Africa

Green Deal gets the green light as UK passes new Energy Act

The UK's Energy Act 2011 became law in October, just days after Prime Minister, David Cameron, met with the country's big six energy companies in an attempt to mitigate the impact of rising energy prices.

The passing of legislation means that the Government's Green Deal initiative is one step closer to becoming a reality. The new law provides for the establishment of financing mechanisms to allow households and businesses to invest in energy efficient improvements, while avoiding the upfront cost. The cost of investment is ultimately paid for by bill-payers through savings in future energy bills. The Green Deal is expected to commence in the second half of 2012 and, as revealed in the Chancellor's Autumn Statement, a £200 million one-off capital sum will be allocated to the Green Deal initiative in its first two years to encourage early uptake of the scheme.

A group of sixteen leading UK businesses, including PwC, has announced plans to establish the Green Deal Finance Company, a not-for-profit finance company that will aim to provide the lowest cost finance for Green Deal providers. PwC sees the Green Deal Finance Company as being fundamental to the success of the Government's Green Deal initiative, and is hopeful that the availability of low-cost financing will lead to increased competition among accredited providers with regard to cost, reliability, lifespan and technology.

Outside of the Green Deal, the new Energy Act also makes law the obligations of private rental landlords to provide energy efficient improvements (where Government support is available) and sets minimum energy efficiency standards for rented residential and business premises. The Energy Company Obligation, which seeks to promote fairness in energy markets and encourage the move to low-carbon energy supplies, also forms part of the Act.



Americas

United States

EPA's smog-controlling policy and clean air decision delayed

The United States Environmental Protection Agency (EPA) retracted its draft Ozone National Ambient Air Quality Standard in September, which proposed to restrict smog-forming chemicals from the country's power plants. Citing a weak economy and a need to reduce regulatory burdens, President Obama made the call that the tightening of pollution rules be delayed until 2013.

The EPA has also delayed issuing a final decision on its proposed changes to carbon dioxide restrictions for coal power plants. The decision was expected in June this year, but was postponed until September. The decision is now expected to be made before the end of the year, following extensive consultation with stakeholders on the draft set of rules. Environmental groups have threatened legal action if the decision is delayed beyond the end of November.

The announcements, which have attracted much public scrutiny, come just six months after the EPA was faced with a 16% reduction on its funding through to September this year.

California moves to implement cap-and-trade scheme

Following a series of legal challenges, California's air-quality regulators are now proceeding with a market-based cap-and-trade scheme in an effort to curb emissions of the country's most populous state. The new scheme is seen as being critical to reducing California's greenhouse gases to 1990 levels by 2020, a target which was legislated in 2006 by then Governor, Arnold Schwarzenegger.

The California Air Resources Board will operate the market which, in its first year will cover around 350 companies, representing over 600 installations. From 2013, the scheme will cover electric utilities and large industrial facilities, and from 2015 its scope will be extended to include distributors of transport, natural gas and other fuels.

Under the scheme, companies will be given permits which allow them to emit a certain amount of carbon. In the first year of trading, these free permits will cover, on average, 90% of the company's emissions. It is the responsibility of the company to manage the residual 10%, either by cutting emissions or purchasing additional permits to cover the excess. Where a company is able to cut emissions by more than 10%, it can sell its excess permits for a profit.

The number of permits provided free to companies will drop each year, making it more expensive for companies to cover their emissions.

The new market-based scheme will commence in 2012, however, participants will not be required to fully comply until 2013.

What this means for you

Matt Haskins – Partner, PwC United States – comments “while the EPA has slowed down its pace of implementation on several larger regulatory projects, companies should continue to monitor regulatory developments and start planning for the compliance obligations that could arise when these standards are implemented.”

What this means for you

Matt Haskins – Partner, PwC United States – comments “while the California trading system will affect a relatively small number of companies in its early years, companies with significant facilities in California will need to prepare to manage their compliance obligations and develop a strategy for managing the financial risks associated with emissions trading.”

Americas

US loan guarantee programme under fire

The Obama administration has been left to defend a controversial loan guarantee programme after a second guaranteed company filed for bankruptcy.

The Department of Energy's loan guarantee programme, which has a total of \$35.9 billion in its portfolio, was established by the Federal Government in a push to generate green energy jobs. The programme provides guarantees to companies to cover their debt obligations should the company default on its loans. The guarantees are broadly targeted at projects involving technologies that are not yet commercialised, as well as renewable energy projects.

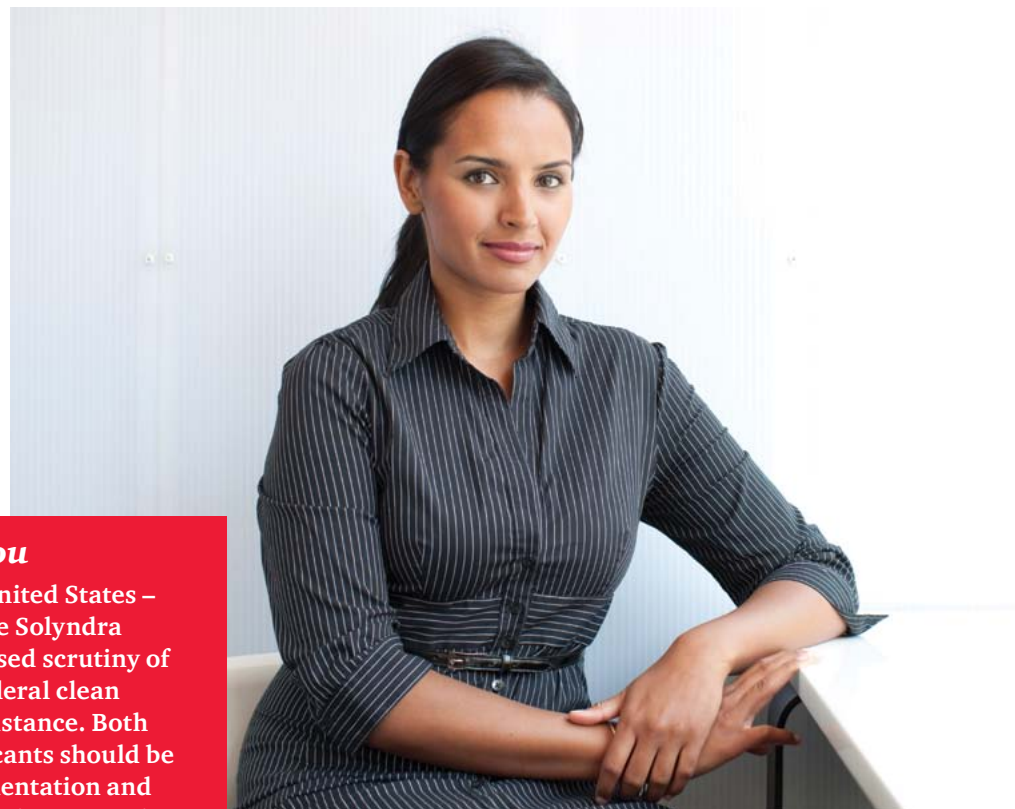
Controversy surrounding the scheme was first sparked when solar-panel manufacturer, Solyndra Inc, filed for bankruptcy after being awarded a \$535 million loan guarantee in 2009. On top of the loan guarantee, the Government invested an additional \$75 million in a

last-minute attempt to save the flailing company. History repeated when a second company, Beacon Power, filed for bankruptcy just a few months later. Beacon Power had been the beneficiary of a \$43 million loan guarantee.

The House of Representatives has opened a Congressional investigation, and the White House has now called for an independent review of the loan guarantee programme.

What this means for you

Matt Haskins – Partner, PwC United States – comments “the fallout from the Solyndra bankruptcy may lead to increased scrutiny of recipients of many forms of federal clean energy grants or financing assistance. Both prior recipients and new applicants should be prepared for additional documentation and financial analysis requirements in connection with these programs.”



Asia-Pacific

Australia

Australian Carbon Price becomes law

The Australian Government's controversial Clean Energy legislative package became law in November, signalling the introduction of a carbon pricing mechanism from 1 July 2012. The new laws will cover around 500 of the biggest polluters in Australia, including businesses in coal-fired electricity generation, mining, steel manufacturing, aluminium production, petroleum refining and cement production industries.

The carbon pricing mechanism has been designed to embed a carbon price into the Australian economy in a staged approach. The carbon price will be fixed for the first three years at \$23 per tonne of carbon, adjusted in real terms by 2.5% per annum.

From 1 July 2015 the price will be flexible, and set by the market with reference to the demand for and supply of carbon permits. This mechanism proposes a framework for setting a cap on greenhouse gas emissions by capping the number of carbon permits available after 1 July 2015, which can be adjusted over time to ensure that the government's reduction targets are met.

The Government plans to link Australia's carbon trading scheme with international trading schemes, most notably the European Union's trading scheme, from 1 July 2015.

The Australian Government recently increased its long term greenhouse gas emissions reduction target to be 80% below 2000 levels by 2050, bringing the country in line with the targets of many other developed countries.

Mineral Resources Rent Tax Bill introduced to Parliament

A year after its announcement in the 2011 Budget and following extensive consultation with stakeholders, draft legislation for Australia's Mineral Resources Rent Tax (MRRT) has been introduced to Parliament. The package of ten bills, if passed, would see the new tax come into effect on 1 July 2012.

The MRRT is a complex new tax, separate and distinct from any tax existing in Australia. Coined the 'super profits tax', the MRRT is designed to be a profits-based, cash flow tax on the economic rents associated with the extraction of coal and iron ore.

The Government had initially proposed a rate of 40% for the tax, but this has been reduced to 30% as part of a compromise with industry.

Revenue from the tax is expected to fund regional infrastructure projects, tax breaks for small businesses, and most notably, 1% cuts to the existing corporate income tax rate of 30% in both 2013 and 2014.

What this means for you

Peter Konidaris – Partner, PwC Australia – comments “the real focus for business (particularly the non-emitters who are not carbon liable) is the impact on supply chain and margin where the carbon price drives up the cost of inputs and requires suppliers to ensure output pricing is appropriately considered. The regulatory environment also looks to be heating up with the Federal Government ensuring businesses who seek to “price gouge” as a result of the carbon price's introduction are closely monitored and potentially subject to heavy fines and penalties.”



Asia-Pacific

China

China introduces National Resource Tax

Just one month before its commencement date, the Chinese Government announced the introduction of a new National Resource Tax. The announcement follows the Government's setting of a series of ambitious green targets as set out in its twelfth Five Year Plan, and is said to be a positive step towards protecting the country's scarce resources and limiting damage to natural environments.

The National Resource Tax, which was trialled in Xinjiang and eleven other provinces last year, includes levies between 5-10% on crude oil and natural gas sales, and per tonne taxes on the sale of rare earth ores and coking coal. The reforms also include a change to the way in which foreign-investment in onshore and offshore oil and gas fields is levied, moving from royalties to a resource tax.

Proceeds from the tax are said to be directed towards roads and railways, wind farms and a nuclear power plants. However it is also understood that the revenues will also be used to assist poorer areas of the country to advance their economies.

The Ministry of Finance and State Administration of Taxation has issued a statement that the changes will not impact domestic prices of oil and natural gas.

The National Resource Tax came into effect on 1 November.

Ambitious targets for China under its 12th five year plan

Earlier this year, the Government released its twelfth Five Year Plan for the period to 2015. Green growth is an integral part of the Plan, as the country looks to ways to grow at a more sustainable pace. The Plan includes, for the first time, targets to reduce carbon intensity by 17% and reduce energy consumption by 16%. It also sets out

ambitions to increase the proportion of consumption of non-fossil fuel energy by 11.4%. These objectives appear consistent with China's long-term goals to reduce carbon intensity by 40% to 45% by 2020 relative to 2005 levels.

In October, it was announced that the Government has commissioned a think tank to develop a national carbon registry for China. This is the first solid indication that a national trading scheme may indeed become a reality. The registry is first likely to be used in pilot carbon trading programmes in provinces around the country from 2013.

In another promising move, China's Ministry of Environmental Protection has announced new emissions standards for the country's thermal power plants effective 1 July 2012. Heightened restrictions will apply to sulphur dioxide, nitrogen oxide and soot emissions from thermal power plants, and for the first time, will also apply to mercury emissions.

What this means for you

Alan Wu – Partner, PwC China – comments “the change from a volume-based royalty to a price-based Resource Tax will increase the operation costs of upstream oil and gas companies, which should be considered when performing financial analyses for potential Production Sharing Contracts. However there are some uncertain issues that require clarification, such as the filing procedure (direct filings or via Chinese party as in the case of windfall profit levy), and whether cash or in kind payments will be made.”

Asia-Pacific

Indonesia

Indonesian President signs decree to curb emissions

In September, the Indonesian President finally signed a decree that formalises the greenhouse gas reductions commitments he pledged at the Pittsburgh G20 meeting in 2009. In 2009 the President announced that Indonesia would reduce carbon emissions unilaterally by 26% from business-as-usual or up to 41% with external funding. Since then, the Government of Indonesia has been developing a roadmap to guide the country toward achieving these commitments, and September's decree gives the plan regulatory approval.

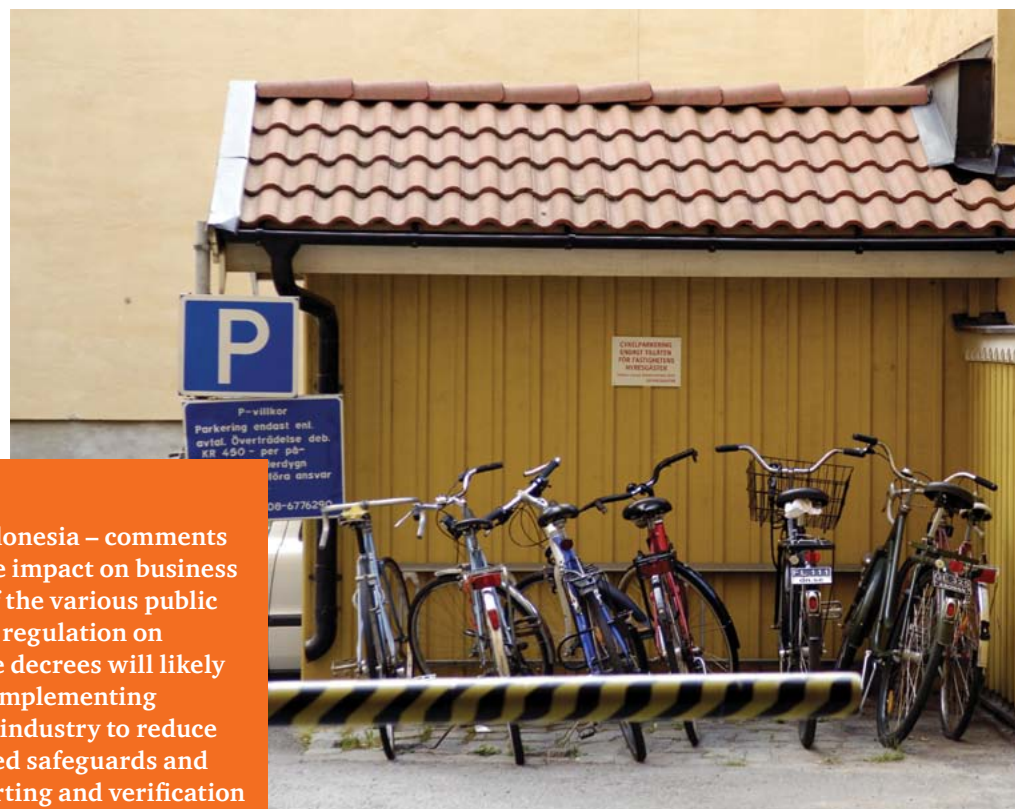
The roadmap shares responsibilities for the emissions reductions amongst line ministries (with a majority share going to the Ministry of Forestry), details more than seventy carbon reduction projects and mandates each of the provinces to develop province-wide carbon reduction plans.

The President also decreed that each province must develop a greenhouse gas inventory.

If implemented, the recent Presidential decrees will significantly reduce Indonesia's carbon emissions without impacting on economic growth. This is another example of Indonesia's continued demonstration of leadership in the developing world by moving towards a Low Carbon Economy.

What this means for you

Anthony Anderson – Partner, PwC Indonesia – comments “the decrees won't have an immediate impact on business as they focus more on the activities of the various public sector institutions, rather than direct regulation on businesses. Over time, however, these decrees will likely result in departments and provinces implementing regulation to either coerce or compel industry to reduce emissions. It is expected that the added safeguards and requirements for measurement, reporting and verification stipulated by external donors will also increase pressure to regulate.”



Asia-Pacific

Japan

Japan announces new feed-in-tariff scheme

In the wake of the Fukushima disaster, the Japanese Government promised to undertake a comprehensive review of the country's energy policy, which had included plans to generate 50% of its energy supply from nuclear by 2030.

As part of the review, legislation has now been passed for a new feed-in-tariff scheme which is designed to encourage investment in solar, wind and other renewable technologies. The laws, which come into effect 1 July 2012, will require utility companies to purchase part of their energy from renewable sources including solar, wind, biomass, geothermal and small-sized hydro power plants. The twenty year feed-in-tariff scheme should set the country on track to achieve its plans to supply 20% of the country's energy from renewable sources by 2020. Meanwhile, pressure continues to mount on the Government to relax regulation of the renewable energy sector to help the country achieve this target.

The country's former Prime Minister, Naoto Kan, passed the feed-in-tariff Bill just days before stepping down.

New Zealand

Calls to put the brakes on New Zealand's ETS

Findings from an independent review of the country's ETS were presented to the New Zealand Government in September. Key recommendations included changes to the Scheme's transition measures, and support for the inclusion of agriculture from 2015 despite intense lobbying from farmers.

Current transition measures require participant companies to surrender permits to cover just half of their emissions, and impose a price cap of \$NZ25 per tonne of carbon. These transition measures are set to expire at the end of 2012, however the independent review recommended that the one-for-two obligation for carbon permits be phased out rather than scrapped immediately, and that the carbon price cap be increased by \$NZ5 per year until it reaches \$NZ50 in 2017.

The Government formally responded to the review in November, confirming that it will adopt the recommendation to phase out the one-for-two obligation over three years, but that it will leave the price cap at \$NZ25 per tonne. The Government also indicated that it does not currently fully support the inclusion of agriculture, which was one of the recommendations of the review.

The Government has also confirmed its intentions to link the country's trading scheme with neighbouring Australia's trading scheme from 2015.

New Zealand is committed to halving its emissions from 1990 levels by 2050.

What this means for you

Julia Hoare – Partner, PwC New Zealand – comments “the Government’s broad endorsement of most of the Review Panel’s recommendations provides business with certainty and clear direction on New Zealand’s long term climate change policy. Whilst the proposed changes mitigate some costs and competitiveness risks in the short term, this is appropriate at a time where there is significant uncertainty about the future of the international framework.”

Asia-Pacific



South Korea

Cap-and-trade scheme on the horizon as South Korea unveils its green growth ambitions

The South Korean Government has unveiled plans on how it proposes to reduce greenhouse gas emissions by 30% by 2020 compared to 2007 levels, a voluntary target set by President Lee Myung-bak back in 2009.

The Government has set emission reduction targets for the transportation sector, buildings, public sector and industries of 34.3%, 26.9%, 25% and 18.2% respectively, relative to 2020 business-as-usual projections. The Government also plans to encourage investment in renewable electricity including the use of smart grids, solar and wind energy, carbon capture and storage, liquefied natural gas, plastic scrap and biomass, while at the same time focussing on improving energy efficiencies.

Plans have also been revealed for a mandatory cap on emissions for over 400 companies from 2012. The new law, known as the Target Management Scheme, will require these companies to reduce their total emissions by 1.4% from projected levels.

From 2012, listed companies with annual greenhouse gas emissions greater than 125,000 tonnes will also be required to disclose emissions data in their annual reports. The new rules will cover 222 companies in the first year and, according to details released by the Government's Financial Supervisory Committee, total greenhouse gas emissions, energy consumption and verified green technology that companies own should be included in the disclosures.

A cap-and trade scheme was also tabled in the Senate in November, which is expected to be legislated either late this year or early next.

Global

All eyes on Durban as UN Climate Change Negotiations get underway

A standing ovation concluded the climate change summit in Cancun at the end of last year. After the disappointment of COP 15 in Copenhagen, many policymakers were relieved that the UN climate negotiations were back on track – or at least had not collapsed altogether. The Cancun Agreements did provide frameworks for financing (the Green Climate Fund), technology transfer, tackling deforestation (REDD+) and adaptation. They also noted the importance of the markets mechanisms and proposed reforms to the Clean Development Mechanism. But they ducked the fundamental issues of the future of the Kyoto Protocol and long term commitments by developed and developing countries to cut emissions.

All eyes are now on Durban as world leaders gathered there this week for COP17. The future of the Kyoto Protocol and financing challenges are expected to be the main focus of the summit, however, for many, expectations for substantial progress remain low.

The G77 group of developing nations have made clear their hopes for a second commitment period under the Kyoto Protocol, while a number of developed nations including Russia, Canada and Japan have confirmed that they will not sign up to a second commitment period. With the US out of the picture, the EU remains the only substantial negotiating bloc that will consider adopting emissions targets under Kyoto beyond 2012, provided other major emitters make comparable targets.

Many have been hoping that Durban will see the launch of the Green Climate Fund, a \$US100bn per year fund to assist poorer nations to reduce greenhouse gas emissions and adapt to the impacts of climate change. Prospects for the launch were dampened

though when the committee tasked with designing the fund failed to reach a consensus to recommend its text to the COP at Durban. The 194 members of UNFCCC will now need to reach some form of consensus in Durban if it wants to see the fund launched there. It has been speculated that some parties may use this process as bargaining power in respect of other aspects of the broader negotiations at Durban.

The current economic crisis is also expected to play its part in hindering progress toward a global deal in Durban. The UN process provides a foundation for all countries to agree on the level of action they are going to take to reduce emissions and, in turn, has the potential to provide clear regulatory signals to governments and the business community to encourage green technology investments. Without a global agreement from the UN process, it makes it very difficult for business to map the regulatory landscape around the world which will have an impact on critical green investments required to tackle the global challenges of climate change.

What this means for you?

Richard Gledhill – PwC Global Leader for Climate Change and Carbon Market Services – comments “many businesses are calling for greater regulatory certainty at the UN climate negotiations. The success of investments in new infrastructure or new products, whether conventional or low carbon, is often dependent on regulation, or the lack of it, such as a carbon floor price, feed-in-tariffs, biofuels requirements, and energy efficiency standards. Whether you are building a new power plant or developing a new car, climate policies can have a huge impact on costs and revenues. Uncertainty in the regulatory outlook hampers low carbon investment and delays investment more broadly. In addition to impacting on what companies invest in, regulatory uncertainty also affects where they choose to invest.”

Global

New Greenhouse Gas Protocol standards unveiled

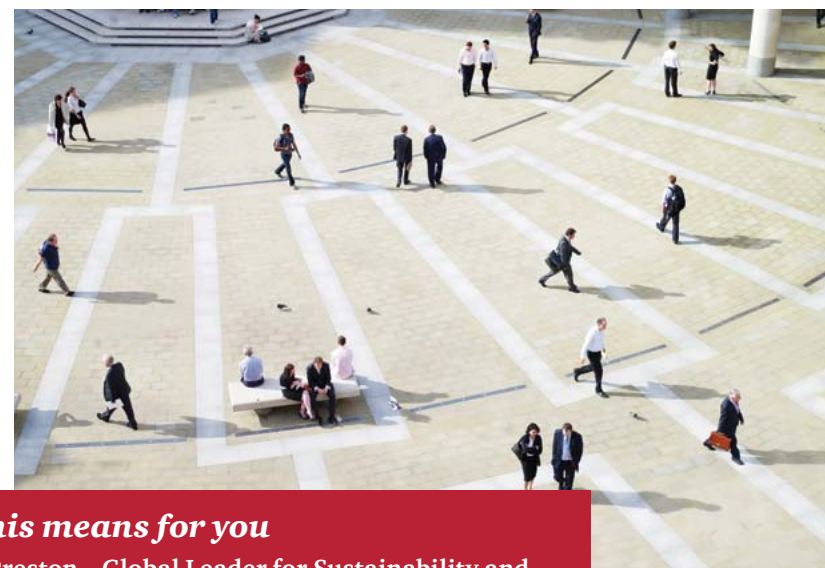
The Greenhouse Gas Protocol launched in October the new Corporate Value Chain (Scope 3) and Product Life Cycle accounting and reporting standards. The new standards, which expand the scale and scope of current carbon emissions accounting, will be of particular interest to businesses in the aerospace and defence, automotive, industrial products, information technology, retail and consumer, and utility sectors.

The Corporate Value Chains standard expands stakeholder expectations on what company emissions should be reported. This moves the focus from emissions generated within a company's control and immediate scope of influence, to include emissions generated by a company's extended upstream supply chain and downstream product use (also known as Scope 3 emissions). Examples of extended supply chain activity are purchased goods and services, business travel or waste generated in operations. Downstream may include downstream transportation and

distribution, product use and downstream leased assets and franchises. While reporting Scope 3 emissions is optional at this point, increasingly, organisations, government agencies and stakeholders are calling for data around these emissions, for example in annual data requests or Requests for Proposals.

The Product Life Cycle standard, meanwhile, expands stakeholder expectations on measuring carbon emissions generated throughout the whole value chain including raw material sourcing, production, product use and end of life.

Scope 1 and Scope 2 of the standards focus on the emissions generated directly by a company and within its control (e.g., within its facility boundaries). By developing a full corporate Greenhouse Gas (GHG) emissions inventory – incorporating Scopes 1, 2 and 3 – companies will be able to understand their full value chain emissions impact and focus on the greatest GHG reduction opportunities.



What this means for you

Malcolm Preston – Global Leader for Sustainability and Climate Change – comments “companies will have to take care to understand the new accounting and reporting requirements, establish strategies for measuring and reducing their emissions, and develop and implement processes and systems for reporting. The new standards will allow organisations to understand and manage activities they influence, not just what they control.”

Global

Global emissions exceed economic growth

Global emissions are increasing faster than economic growth, reversing a slow, but gradual, reduction in carbon emissions intensity. The findings, from new analysis in the PwC Low Carbon Economy Index released in November, show that for the first time since 2004, no improvement has been made in reducing the carbon intensity (which reflects the fuel mix, energy efficiency and the balance of industry and services) of the G20, despite modest economic recovery globally.

The report also highlights the scale of the low carbon financing challenge yet to be resolved.

During the recession, many countries saw carbon emissions fall quicker than GDP, because manufacturing output fell. But that trend was reversed during 2010, when global GDP growth was 5.1% but emissions growth was higher at 5.8%.

The increase in carbon intensity of 0.6% was the first time in many years that carbon intensity has risen. The rapid growth of high carbon intensive emerging economies during 2010 including China, Brazil and Korea; colder winters at the beginning and end of the year; the fall in the price of coal relative to gas; and a drop in renewable energy deployment, all contributed to increase carbon intensity last year.

Globally, going forward, carbon intensity now needs to reduce by 4.8% a year, over twice the rate required had we started in 2000. It is only in exceptional circumstances that countries have sustained decarbonisation rates over 4% for a decade.

The report warns that unless the tie between economic and emissions growth is severed, the prospect of achieving the 2 degrees goal stated by governments just twelve months ago in Cancun, appears remote.



What this means for you?

Jonathan Grant – Director, PwC United Kingdom – comments “the G20 economies have moved from travelling too slowly in the right direction, to travelling in the wrong direction. Achieving the rates of carbon productivity needed requires a revolution in the way the world produces and uses energy. Married to that, and in the midst of a global financial crisis, we need a transformation in financing to help achieve the low carbon shift.”

Contact us

For your global contact and more information on PwC's sustainability and climate change services, please contact [Anna Pattison](#).

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