

Global Green Policy Insights

*Your environmental tax
and regulation update*

1 June 2012

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Welcome to Global Green Policy Insights, your bimonthly update on the latest developments in environmental taxes, regulations and other 'green' policies around the world.

This month, all eyes will be on Rio de Janeiro as tens of thousands of business leaders, heads of state and negotiators from governments around the globe, representatives of civil society and the world's press gather there for the United Nations (UN) Conference on Sustainable Development. Also known as Rio+20, the Conference marks the 20 year anniversary of the watershed Earth Summit held in Rio in 1992. The issues being addressed at [Rio+20](#) are no less daunting than in 1992, with critical pressures across the sustainability agenda set against a challenging economic environment in many parts of the world.

So what can we expect from Rio+20? Unfortunately there is widespread pessimism about what progress might be made. We recently conducted a survey of global CEOs to get their views, and found that less than half expect any or significant progress across the key areas of sustainable consumption and resource scarcity, biodiversity loss, food and water security, access to affordable energy, equality and social inclusion, and climate change. When asked what they perceive to be the most effective measures to drive action in these areas, almost all favoured the use of national or regional regulation and national subsidies and taxation, as well as private sector investment.

It is therefore not surprising that we continue to see new regulations, subsidies, taxes and other policies emerging at the national level and, increasingly, sub-national level, as countries look to address the sustainability agenda at home. In the past few months we have seen climate change legislation

enacted in [Mexico](#) and [South Korea](#), and the development of environmental policies in [Peru](#), [Kazakhstan](#), [Vietnam](#) and some states of [India](#). A focus on increasing the share of renewables and clean energy in the global energy mix is on the rise, with [Denmark](#) committing to ambitious renewable energy targets and developments in the feed-in-tariff schemes of [Germany](#), [Los Angeles](#) and [Japan](#). Meanwhile, [Australia](#) readies itself for the introduction of its carbon price next month, and preparations continue in [China](#) for the launch of its pilot trading schemes next year.

The [PwC Sustainability and Climate Change Tax Network](#), made up of more than 30 countries around the world, collaborates to assist clients understand their global exposure to environmental taxes and regulations, manage compliance obligations and identify opportunities to claim incentives and other funding. To learn more or to stay informed on the latest on Rio+20, visit our [website](#) and stay tuned to our blog posts and twitter feeds.

Best wishes

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In this issue



Europe, Middle East and Africa

Denmark

Denmark's Energy Agreement confirms ambitious green targets

The Danish Government has secured broad political commitment to ambitious renewable energy targets through its new Energy Agreement. The Agreement outlines energy policy initiatives to achieve a series of 2020 goals, which include reducing gross energy consumption by 12% compared to 2006 levels, increasing the share of renewable energy to 35%, and wind energy in total electricity consumption to 50%. This will be achieved through subsidies to biogas, investments in windmills and energy efficiency improvements.

The Energy Agreement includes a pool of funds for promoting efficient use of renewable energy in production processes, with subsidies growing from the DKK 250 million (US\$43 million) in 2013 to DKK 500 million (US\$86 million) per year through to 2020. The funds will be awarded to projects that replace the use of fossil fuels with renewable energy or district heating, and energy efficiency improvements directly related to these conversion projects.

The Energy Agreement is designed to help the Danish Government achieve its legislated target that the country's entire energy supply, including electricity, heating, industry and transport, be sourced from renewable energy in 2050.

Germany

Germany shelves planned cuts to solar feed-in-tariffs

The German Government's plans to cut solar feed-in-tariffs have been shelved. The plans, which were announced earlier this year, had proposed a one-off cut of up to 32% to the feed-in-tariffs, followed by more frequent reviews for scheduled reductions. A cap on the amount of solar energy output that would be eligible for the subsidies was also proposed.

Last month, the Government's plans received a blow, with federal states governed by coalitions of Germany's Social Democratic Party and Bündnis 90/Die Grünen (the Greens) joining some states governed by Angela Merkel's Christian

Democratic Union party, voting to refer the bill from the Upper House to the mediation committee. The unexpected move suggests that the cuts will likely be watered down.

In an effort to reach a compromise on the bill, the Federal Environment Ministry soon after announced renewed support for research and development of solar technologies by way of an additional €30 million in federal funding.

What this means for you

Felix von der Planitz, Senior Manager, PwC Germany – “For the time being the move may bring relief to the solar industry, particularly in East German states where many jobs are at stake due to several insolvencies in recent months. However, it cannot hide the fact that the solar business is a highly subsidised industry and that it is unlikely that the proposed cuts will be set aside entirely.”

What this means for you

Søren Jesper Hansen – Partner, PwC Denmark – “We expect to see companies continuing to invest in renewable energy. Wind turbines have been a focus area for many Danish businesses, and the establishment of large offshore wind farms will likely continue.”

Europe, Middle East and Africa

Italy

Carbon tax on the cards for Italy

The Italian Government unveiled plans in April to introduce a set of environmental taxes and incentives, including a tax on the carbon content of fuels. The new taxes and incentives are aligned with the EU directive 2003/96/CE, which set a goal for bio-fuels to represent 5.75% of fuel consumption on roadways by 2010, thereby reducing the use of diesel and gas/petrol. According to a Reuters report, revenues from the carbon tax will be earmarked to fund renewable energy projects. Plans for the proposed taxes and incentives must be approved by the country's Parliament before it can become law.

Just days before the plans were made public, the Government increased the country's 2020 renewable energy targets from 26% to 32-35%, and at the same time revealed plans to cap incentives for renewable energy production.

According to Reuters, Italy's incentives for solar energy production will be capped at €6 billion, a threshold which it expects to reach between July and October this year. The ceiling for other renewable energy incentives will likely be reached in January next year. Reuters reports that, according to an Industry Ministry official, the average cuts to incentives for solar and non-solar renewable energy production will be 35% and 10-15%, respectively.

The cuts will come into effect once the solar and non-solar renewable energy incentives thresholds are reached.

Morocco

Morocco becomes tenth country to join World Bank's Partnership for Market Readiness programme

Morocco 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 UN Framework Convention on Climate Change (UNFCCC) Summit in Cancun in 2010, supports less-developed countries to implement programmes to cut national emissions.

Morocco has been awarded US\$350,000 preparation funding under the first phase of the programme to establish a framework for monitoring, reporting and verification, as well as a pilot carbon market instrument for crediting Nationally Appropriate Mitigation Actions (NAMAs) in relevant sectors.

The PMR, which so far has provided support to Chile, China, Colombia, Costa Rica, Indonesia, Mexico, Thailand, Turkey and Ukraine, relies on funding from some of the world's richest countries. A total of US\$75 million has been pledged to date by Australia, Denmark, the European Commission, Germany, Japan, Norway, the Netherlands, Spain, Switzerland, the United Kingdom and United States.

The PMR aims for total capitalisation of US\$100 million to support projects in fifteen developing nations. Brazil, India, Jordan, South Africa and Vietnam are the other five Implementing Country Participants that have expressed interest and will likely receive preparation funding under the programme.

Europe, Middle East and Africa

Norway

Norway's plans to double carbon tax on oil and gas sector

Norway's Government has unveiled plans to double its carbon tax on the country's oil and gas sector. The proposal, published in a Government white paper in April, is designed to encourage the offshore use of renewable energy generated onshore, and curb offshore carbon emissions.

While Norway relies heavily on renewable energy generated onshore to power the mainland, offshore facilities largely depend on associated natural gas for power generation for on-site needs. The move to double the carbon tax, which was first introduced in 1991, is intended to incentivise the development of infrastructure to the mainland, and spur innovation in renewable and clean energy technologies, such as carbon capture and storage (CCS).

The carbon tax, which is proposed to be increased by NOK200 (US\$34) per tonne of carbon dioxide emissions for offshore facilities, is part of the Government's plans to reduce domestic emissions by 30% by 2020 compared to 1990 levels.

Just weeks after the carbon tax announcement, Norway's Prime Minister opened the Technology Centre Mongstad (TCM), a public and private-funded CCS test facility on the western coast of the Norway. CCS is a process that captures, transports, and stores underground, emissions from large industrial plants using fossil-fuels. The new testing facility, which is the largest of its kind, is testing two types of post-combustion carbon capture technologies.



What this means for you

Bård Ivar Koppang– Partner, PwC Norway – “It will be of great importance for the oil and gas industry to develop technologies and collaborate on new oil fields to lessen the impact of the increased costs. The move to encourage industry to use onshore power also creates concern regarding capacity of the existing power grid and availability of existing renewable energy sources in Norway. In developing new technologies to overcome these issues, the oil and gas industry will not only avoid the impact of increased tax costs, but also gain a competitive edge in the international market.”

Europe, Middle East and Africa

United Kingdom

UK delays decision on mandatory emissions reporting as big business calls for action

The UK Government has delayed its decision on whether to impose mandatory emissions reporting on the country's largest emitters. The proposal was first considered back in 2009, and the latest consultation period closed in July last year, however the Department for Environment, Food and Rural Affairs (Defra) said they need more time to analyse submissions.

In response to the delay, the Aldersgate Group – a coalition of environmental groups and major corporates – last month called on the Government to push for a decision to be made. In a letter to the Deputy Prime Minister, the Group expressed disappointment over the delay of the decision, and reiterated that “the introduction of mandatory [emissions] reporting would help to ensure greater accountability and transparency, create a level playing field and help enable investors and consumers to make meaningful comparisons”.

The Aldersgate Group concurrently published the results of its recent Populus poll which shows that 75% of the 2,044 adults surveyed across the UK, believe that large businesses should be required to report carbon emissions.

UK Government unveils CCS roadmap as £1 billion competition relaunched

The UK Government has launched its first Carbon Capture and Storage (CCS) Roadmap, which sets out plans to support the development and commercialisation of the technology in the 2020s, and at the same announced the relaunch of a £1 billion CCS competition.

Unlike the CCS competition the Government launched in 2007, where the entire amount was to be allocated to a single project, the new programme will see the £1 billion split between projects across the country. According to the Secretary of State for Energy and Climate, this change in the distribution of funds is to promote the development of a “new world-leading CCS industry, rather than just simply projects in isolation”. At the time of writing, 16

companies had registered interest in participating in the new CCS competition.

The announcement comes less than a year after the previous competition collapsed, when the Government could not reach agreement with the final project in the process – Scottish Power's Longannet coal-fired power plant in Scotland. The Government cited technical and commercial difficulties, and failure to reach an agreement with the power company developer, as reasons for the collapse. The Longannet project would have been the United Kingdom's first commercial-scale CCS project.

In weeks following the announcement, the UK Government separately pledged £60 million to the development and demonstration of CCS technology in developing countries. CCS projects in these countries are now also eligible to earn carbon credits under the Clean Development Mechanism (CDM) scheme, following the agreement by governments at the UN Climate Change summit in Durban.

What this means for you

Alan McGill – Partner, PwC United Kingdom – “Businesses are already very active in the area of emissions reporting, and this delay sends the signal that it doesn't really matter. Without clear guidelines, we risk creating a patchwork of reporting approaches, adding cost and complexity for companies and making it more difficult for investors to navigate the low carbon world.”

What this means for you

Jonathan Grant – PwC United Kingdom – “The International Energy Agency has suggested that CCS should contribute around 25% of the emissions reductions required by 2050. However, substantial cost and regulatory barriers need to be overcome before there is broader roll out of this clean technology.”

Europe, Middle East and Africa

UK publishes draft Energy Bill that will “keep the lights on, bills down and air clean”

The UK Government has published its long-awaited draft Energy Bill, nearly a year after unveiling its Electricity Market Reform white paper last July. The Secretary of State for Energy and Climate Change says he is confident that the measures contained in the bill will “enable us to keep the lights on, bills down and air clean”.

The draft Energy Bill largely reflects the proposals contained in last year’s white paper, which proposed a number of measures to attract £110 billion of investment in low carbon infrastructure. The white paper, and now draft bill, contain four key areas of reform, including the introduction of a new incentive scheme known as “contracts for difference” (CfDs), a carbon price floor, Emissions Performance Standards (EPS) for new power plants, and support for power plants to provide back-up to intermittent renewable and nuclear supply.

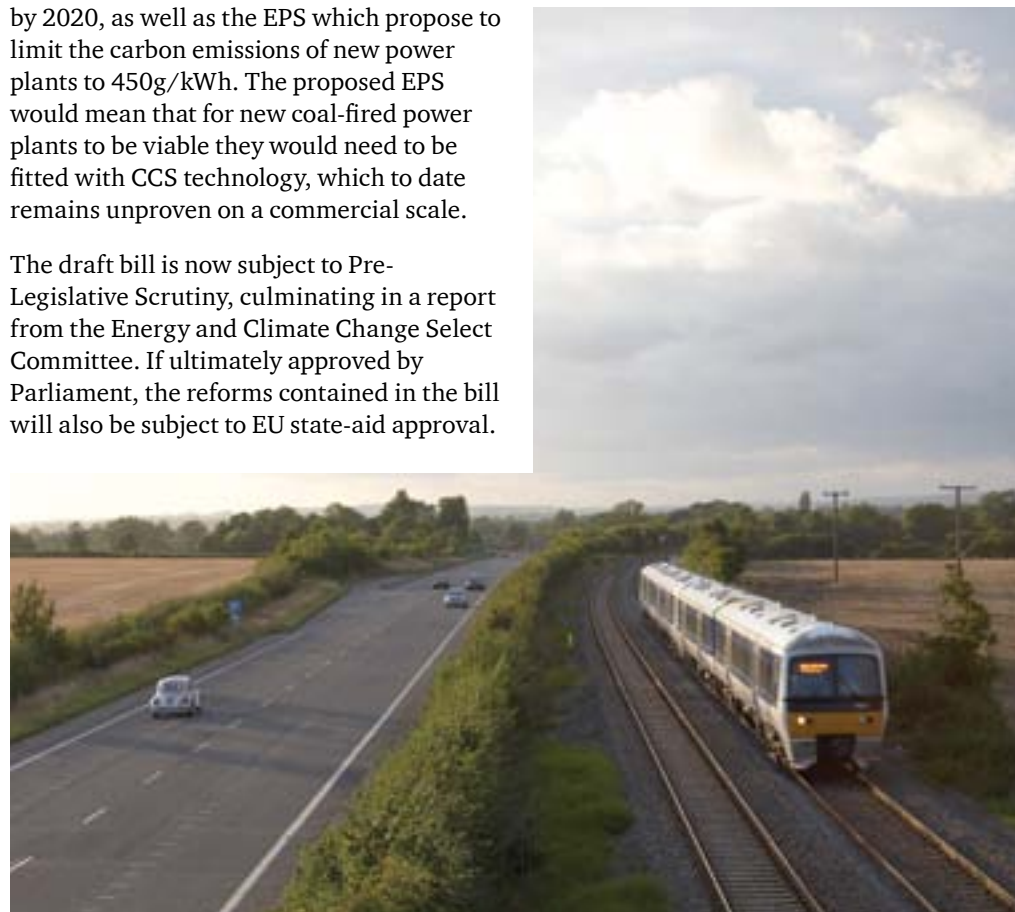
According to the draft bill, CfDs will come into effect from 2014, however the levels of support to be provided under the scheme – known as guaranteed “strike prices” for energy generated – will not be published until next year, and will vary depending on the technology type, as well as year to year. In an effort to avoid delays in investment in low carbon infrastructure, the draft bill proposes “investment instruments” that would provide developers with some level of certainty over expected returns from the CfDs, before they come into force in 2014.

The draft bill also contains transition measures that would allow generators to continue under the existing Renewables Obligation programme, instead of the CfD scheme, until March 2017.

Other measures confirmed in the draft bill are the introduction of a carbon price floor from 1 April 2013, starting at a rate of approximately £16 per tonne of carbon emissions and increasing to £30 per tonne

by 2020, as well as the EPS which propose to limit the carbon emissions of new power plants to 450g/kWh. The proposed EPS would mean that for new coal-fired power plants to be viable they would need to be fitted with CCS technology, which to date remains unproven on a commercial scale.

The draft bill is now subject to Pre-Legislative Scrutiny, culminating in a report from the Energy and Climate Change Select Committee. If ultimately approved by Parliament, the reforms contained in the bill will also be subject to EU state-aid approval.



Americas

Brazil

Controversial forest legislation clears Brazil House of Congress

A controversial bill that would result in incentives for Brazil's landowners to clear forested land, has cleared the House of Congress. A prior version of the bill had already passed the Senate, before the controversial revisions were introduced by Congress. The intent of the legislation is to regulate land use and create boundaries to preserve areas of vegetation, however the proposed changes have attracted fierce criticism from environmental groups.

One of the 21 revisions made in the House of Congress is effectively a pardon to landowners who illegally cleared land up to 2008, removing the obligation for these lands to be reforested. Another point of contention relates to the protection of forests and other vegetation along the country's riverbanks, due to the changes in House of Congress which propose to not permanently preserve these areas.

At the time of writing, the revised bill was before the President to veto or approve. According to latest reports, the President intends to recover much of the original text that was approved by the Senate, vetoing a number of the modifications made in the in the House of Congress.

Forestry is the biggest contributor to Brazil's emissions and it is feared that, if approved, the new legislation could hinder the country's chances of achieving its emissions reduction targets of 36.1% to 38.9% compared to 1990 levels by 2020.

Following the approval in the House of Congress, Brazil's environmental exchange market, Bolsa Verde do Rio de Janeiro (BVRio), opened registration for those planning to trade forest offsets which can be used under the forest legislation to meet forest cover requirements.

The BVRio market was first announced earlier this year, and is expected to see the trade of a wide range of environmental assets, including forest offsets and carbon credits, once launched.



Canada

Canada unveils regulations on emissions from heavy vehicles

Canada has unveiled long-awaited regulations to reduce emissions from trucks and buses by 23% by 2018, compared to 2012 models. The regulations, which were announced by the Environment Minister in April, will come into effect from the 2014 model year, and will apply to full-size pickups, heavy trucks and buses, as well as cement, garbage and dump trucks.

These regulations on heavy vehicles are part of the country's sector-by-sector approach to cutting emissions, and follow the lead of the United States which introduced similar fuel-efficiency standards last year.

Although Canada withdrew its formal commitment to reduce emissions under the Kyoto protocol late last year, the country has a new target to reduce greenhouse gas emissions by 17 % from 2005 levels by 2020.

Americas

Mexico

Mexico passes climate change bill

Mexico's Senate has unanimously passed a bill that legally commits the country to achieving ambitious emissions reduction targets of 30% against business as usual by 2020, and 50% by 2050. It also introduces new incentive programmes to promote clean energy generation, and sets a goal to have 35% of the country's energy from clean sources by 2024.

Other features of the law include the establishment of a federal climate change commission which will be responsible for overseeing implementation of the law and the country's climate change agenda, as well as having powers to create a domestic carbon trading market, the creation of a climate fund, and the development of a National Registry of Emitters and rules around mandatory tracking and reporting of emissions for some of the country's largest emitters.

Mexico's President, Felipe Calderon, who is in his sixth and final year in office, introduced the bill in 2011 and has worked to ensure that addressing climate change is one of the country's top political priorities.



What this means for you

Arturo Mendez – Partner, PwC Mexico – “Mexico's commitment to achieve important emissions reductions in the next few years, as promoted by President Felipe Calderón, is a matter on which all of Mexico's political parties agree. This means that this newly legislated initiative will remain on the agenda of the next federal administration, regardless of which political party takes office on 1 December. We can therefore expect to see Government and private investors taking immediate actions to control and reduce emissions in the short term.”

Peru

Peru adopts climate change plan

Peru has adopted a resolution on climate change, which will see the South American country develop a series of domestic initiatives to move towards a low carbon economy.

According to Point Carbon, the Government plans to develop a national greenhouse gas emissions inventory and undertake new studies to help in the development of future policies to tackle climate change.

Increasing the share of renewables in the country's energy mix, and reducing illegal logging, also form part of Peru's climate change plan.

Americas

United States

USA EPA regulates emissions from new power plants

The United States Environmental Protection Agency (EPA) has released its anticipated regulations on greenhouse gas emissions from new coal-fired power plants. The regulations will affect plants built in the future, however, existing facilities and those due to begin construction during the 12 months following the announcement will be exempt.

Under the proposed rules, greenhouse gas emissions from new plants will be limited to almost half of that permitted from existing plants. To be compliant, coal-powered plants would need to be fitted with new emissions reduction technologies, such as carbon capture and storage (CCS). Critics have

argued that since CCS is not yet commercially available, these proposed regulations are simply an administrative attempt to forestall construction of new coal-fired power plants.

Late last year, the EPA released the country's first-ever standards to regulate mercury and other toxic emissions from coal and oil-fired power plants, and just months earlier delayed indefinitely a decision on rules that would limit smog forming chemicals in the country.

The new regulations on coal-fired power plants are now open for public consultation. It is uncertain, however, whether the standards will be finalised before the federal election this November.

USA: Los Angeles introduces solar feed-in-tariffs

Los Angeles City Council has approved the commencement of the city's CLEAN LA Solar Programme. CLEAN LA, which stands for Clean Local Energy Accessible Now, is effectively a feed-in-tariff scheme that guarantees property owners payments based on the amount of solar power they generate.

Approval by the City Council means the Department of Water and Power (DWP) can proceed with the programme up to a capacity of 150MW, following a 10MW demonstration project which has now also been approved. If the demonstration project proves successful, this paves the way for a full-scale programme of between 75MW and 150MW by 2016 which, according to the Los Angeles Business Council, would power the equivalent of 34,000 homes.

California aims to have 33% percent of its energy coming from renewable sources by 2020.

What this means for you

Matt Haskins, Principal, PwC United States – “State and local policy continues to be an important driver for siting decisions and economics in the US renewables industry. Companies should go through a thorough site selection review and compare local policies before choosing locations for their renewables projects.”

Americas

USA EPA releases first national rules on fracking

The EPA has issued standards that regulate smog-forming emissions produced from the controversial drilling process of hydraulic fracturing, or fracking, of oil and natural-gas wells. Fracking is a method in which water, chemicals and sand are injected at high pressures deep underground to fracture rocks and release trapped reserves of oil and natural gas. The EPA's standards on fracking emissions are the first of their kind.

Last year's draft regulations attracted criticism from the oil and gas industry for requiring immediate compliance because the industry argued that smog reducing technologies would not be readily available. Under the revised standards, operators have until January 2015 to bring their wells into compliance.

The Government has since also unveiled draft rules which seek to regulate the activity of fracking on public land.

USA: California proposes linkages with Quebec's carbon market

Last month the California Air Resources Board proposed new regulations that would see California's carbon trading market linked with Canadian province Quebec's market, allowing for cross-border trading of carbon permits. The proposal is currently open for consultation, and is expected to be voted on later this month. If approved, the first linked auction of permits would take place in November.

In a separate move, the California Public Utilities Commission (CPUC) has approved trading rules for investor-owned utilities (IOUs), which means IOUs can now begin trading allowances. A number of the restrictions which were included in the draft rules released in February have been relaxed. In particular, IOUs will have more flexibility on the quantity of offsets and California Carbon Allowances (CCAs) they hold. Rules that require IOUs to only purchase offsets where the seller assumes the risk of invalidation, and restrictions on

their ability to procure futures, options, swaps or other carbon derivatives in the early years, remain in place.

California's carbon market is expected to cover around 350 companies, representing over 600 installations, when it opens for business next year. The cap-and-trade programme is a critical element of the Government's commitment to reducing the state's greenhouse gases to 1990 levels by 2020.

What this means for you

Matt Haskins, Principal, PwC US – “Fracking has had a major effect on US natural gas prices, inducing many utilities to switch from coal and contributing significantly to an overall drop in greenhouse gas emissions, according to International Energy Agency findings reported on by the Financial Times. Policy makers are now trying to balance the benefits of fracking with environmental concerns about the process.”

What this means for you

Matt Haskins, Principal, PwC United States – “Businesses with compliance obligations in California are likely to welcome efforts to enhance policy clarity, depth, and liquidity in the nascent California carbon market.”

Asia-Pacific

Australia

Tax Break for Green Buildings repealed as Australia prepares for carbon price

As part of its 2012 budget, the Australian Government announced that it will scrap the Tax Breaks for Green Buildings initiative, which was due to come into effect on 1 July. The initiative was designed to encourage companies to make improvements to the energy efficiency of existing buildings. According to the country's Climate Change Minister, the significant changes in the country's climate change policy since the tax break's inception in 2010, and availability of other incentives under the Clean Energy Future Package, mean that the initiative is no longer considered "value for money".

Just days before the budget announcement, Australia's Clean Energy Regulator published the Liable Entities Public Information Database (LEPID), an online database which lists the 248 facilities which will be required to comply with Australia's carbon price legislation from next month. While other facilities will be brought into the scheme after the commencement date of

1 July, according to the Climate Change Minister the total number will likely be lower than 500, which has long been the estimate.

Facilities that emit over 25,000 tonnes of carbon will be required to comply with the Australian carbon price, which is to remain fixed for three years at AUD\$23 per tonne (US\$24), adjusted in real terms by 2.5% per annum. From 1 July 2015 the price will become flexible as it moves to a market-based emissions trading scheme.

During the first three years, companies covered by the carbon price legislation will be eligible to offset up to 5% of their total emissions using Australian Carbon Credit Units (ACCUs) generated through the Carbon Farming Initiative (CFI) programme. Under the programme, farmers and landowners can earn carbon credits by reducing emissions or storing carbon on their land, which can then be sold on to companies required to surrender permits under the carbon price legislation.

In April, the Government proposed two new "methodologies" that would be eligible to earn ACCUs under the CFI programme. These include diverting waste from landfill through a composting alternative waste treatment technology, and diverting waste to an alternative waste treatment facility. If approved, these would join the only other approved "methodologies" of savanna fire management, environmental plantings, capture and combustion of landfill gas emissions, and destruction of methane from manure in piggeries.



What this means for you

Suzi Russell – Partner, PwC Australia – “The Australian Government has been keen to ensure that the carbon price is not viewed as a carbon “tax”. However, there have been a number of changes to the existing tax regime, which suggest that there are related tax impacts. The repeal of the Green Building tax incentive and the increase in the Road User Charge announced in the 2012 Budget, which has the effect of reducing fuel tax credits available to businesses purchasing fuel, are two examples of the Government flexing the existing tax system to achieve its environmental policies.”

Asia-Pacific

China

China: Carbon offset market in sight as Beijing prepares for pilot carbon trading from 2013

Beijing looks set to launch its pilot carbon trading scheme from next year, after draft trading rules for the scheme were circulated at an event organised by the local government body in charge of the city's climate policy in March. Point Carbon, who saw the document, reported that while it was light on details in terms of which sectors would be covered and their emissions caps, it included draft rules regarding the allocation of permits, use of offsets, and price control mechanisms.

Beijing facilities that in 2009 and 2010 emitted over 10,000 tonnes of carbon dioxide on average per year will likely be covered by the scheme, and thermal electricity providers, the heating sector, manufacturers and major public buildings have already been asked to provide emissions data for that period, according to Point Carbon.

Based on reports by China Daily, the assistant general manager of the China Beijing Environment Exchange has said that the carbon trading scheme could have “two layers”, the first covering direct emissions from next year, and the second covering indirect emissions from 2014. According to a draft implementation plan, more than 600 companies in Beijing will be required to cap their carbon emissions.

Beijing is one of five cities and two provinces in China to be participating in the country's pilot carbon trading schemes from next year, in preparation for a nationwide carbon trading scheme from 2015.

In another move, China's National Development and Reform Commission (NDRC) has revealed that draft rules governing China's carbon offset market are close to being finalised. According to Point Carbon, citing officials from NDRC and an associated think-tank, the offset system will be based on the UN Clean Development

Mechanism (CDM) programme, and projects already approved under CDM would be given priority. Offsets generated through approved projects – known as China Certified Emissions Reductions (CCERs) – will be eligible to use in China's seven pilot trading schemes from next year, however municipal governments can impose restrictions on the use of offsets in their schemes.

China's seven pilot trading schemes, and planned future nationwide scheme, aim to help the country achieve goals set out in its twelfth five year plan, which include reducing total carbon intensity by 17% and energy consumption by 16% by 2015, compared to 2010 levels.



Asia-Pacific

China focuses on energy efficiency and grid-connectivity for renewables

China's Ministry of Finance has announced the introduction of additional subsidies to the country's electricity grid operators to encourage increased connection of renewable energy to the grid.

China boasts the world's largest installed wind power capacity, according to the Chinese Renewable Energy Industries Association, however the country's limited grid connectivity means that a significant portion of wind power generated is lost.

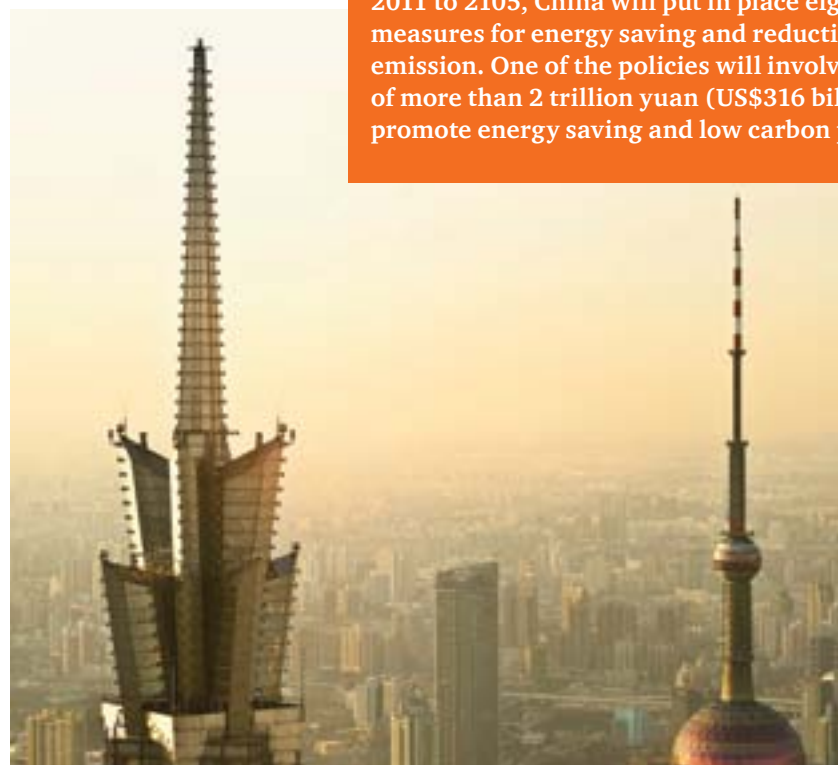
Based on reports from state-owned Xinhua News Agency, the Government will subsidise grid operators 0.01 yuan/kWh (US\$0.002) for on-grid renewable electricity transmitted within 50 kilometres, 0.02 yuan/kWh (US\$0.002) between 50 and 100 kilometres,

and 0.03 yuan/kWh (US\$0.005) for transmission length longer than 100 kilometres. A subsidy of 4,000 yuan/kW (US\$633) each year will be available to public renewable energy power generating systems that are invested in or subsidised by the State.

In the month following the announcement, the Government also unveiled its first ever target for energy efficient buildings. According to Xinhua News Agency, the target calls for energy-efficient buildings to account for 30% of new construction projects by 2020. The target was announced in an official document released jointly by the Ministry of Finance and the Ministry of Housing and Urban-Rural Development.

What this means for you

Alan Wu – Partner, PwC China – “These are positive steps. During the 12th Five-Year Plan period from 2011 to 2015, China will put in place eight policy measures for energy saving and reduction of carbon emission. One of the policies will involve investment of more than 2 trillion yuan (US\$316 billion) to promote energy saving and low carbon projects.”



Asia-Pacific

India

Climate change and India's twelfth five year plan

India's Government plans to invest Rs 2 lakh crore (\$US37 billion) in climate change initiatives, according to the working group on climate change of the twelfth five year plan, and as reported by the Times of India. The funds will be channelled through the various missions established under India's National Action Plan on Climate Change (NAPCC), and will be overseen by a new dedicated structure of governance, according to the report.

The NAPCC was introduced in 2008 to set out the country's vision to address climate change through sustainable development. Eight missions focussed on Solar, Enhanced Energy Efficiency, Sustainable Habitat, Water, Sustaining the Himalayan Ecosystem, Green India, Sustainable Agriculture and Strategic Knowledge for Climate Change were established under the Plan, which followed the introduction of the country's National Environmental Policy in 2006. The Government is also in the process

of drafting a ninth national mission which is the bio-energy mission targeting biomass based energy generation. In 2009, India pledged to reduce the country's emission intensity by between 20% and 25% below 2005 levels by 2020.

The report on climate change and the twelfth five year plan, which was prepared by the climate change working group and submitted to Government last year, calls for a series of initiatives to be introduced. These include the integration of NAPCC into central sector plans, institutionalising a greenhouse gas inventory management system programme, developing a lower carbon inclusive growth strategy, establishing a National Agency for implementing Mitigation Actions, focusing on capacity building for market partnerships/mechanisms, establishing a National Strategic Fund for climate change research, development and demonstration, and developing a State Action Plan to support states to prepare and implement state level action plans on climate change.

Environmental policies continue to emerge across India's states

Across India, states are introducing a range of environmental policies. Last month, Tamil Nadu state unveiled a draft of its first environmental policy, which seeks to address climate change, alongside air quality, water quality, pollution abatement in rivers, lakes and water bodies, solid waste and e-waste management. According to The Asian Age, citing the Environment and Forest Department's Principal Secretary, who drafted the policy, the framework will centre on "environmental tax reforms, green economy and green growth and public private partnership".

Meanwhile, the environmental policy of nearby Kerala state is under review. The state's policy was first developed in 2009, however according to member-secretary of the Kerala State Biodiversity Board, and as reported by The Hindu, the policy was not

"an actionable one" and so was limited in terms of its ability to address the key issue of climate change. Most notably, it is said to have excluded aspects such as carbon footprint, greenhouse gas emissions and climate change mitigation measures. A consultation process on the policy is now underway.

In Delhi, power distribution companies are preparing to face renewable purchase obligations (RPOs). According to the Times of India, Delhi Electricity Regulatory Commission (DERC) will soon confirm the requirement that distribution companies procure a minimum 2% of power from renewable energy sources, including a mandated 0.1% from solar. The planned RPO scheme was first announced last year and, according to the Times of India, follows the lead of Gujarat, Maharashtra, Mumbai, Rajasthan and Tamil Nadu states which have similar programmes in place.

Asia-Pacific

Japan

Last nuclear plant closes as Japan prepares for renewable feed-in-tariff scheme

In May, Japan shut down the last of the country's functioning nuclear power reactors, more than one year on from the nuclear disaster in Fukushima. All reactors are now offline and will only reopen subject to testing and government approval, according to Bloomberg. Prior to the Fukushima accident, Japan had relied on nuclear power to provide 30% of country's electricity.

In an effort to encourage investment in solar, wind and other renewable sectors, Japan looks set to launch its feed-in-tariff scheme, which was legislated last year, on 1 July. Under the scheme, generators of renewable energy will be able to sell their electricity to the country's utility companies at a fixed feed-in-tariff rate.

An independent advisory committee has recommended to the Ministry of Economy, Trade and Industry that feed-in-tariff rates of 42 yen/kWh (US\$0.52) be introduced for

solar power, and 23.10 yen/kWh (US\$0.29) for wind power plants with more than 20kW capacity. According to Bloomberg, citing the Ministry, the suggested rate for solar power is more than three times the rate for industry and commercial users which currently stands at 13.65 yen/kWh (US\$0.17). The recommended rates for the twenty year scheme will require approval from the Ministry before the scheme commences on 1 July.



Kazakhstan

Carbon trading on the horizon for Kazakhstan

Kazakhstan plans to launch an emissions trading scheme as early as January next year, according to Point Carbon.

Based on information shared with Point Carbon from a government advisor, the scheme will cover installations that emit more than 20,000 tonnes of carbon dioxide per year, and will be in pilot phase for one to three years. Foreign UN-backed carbon offsets would not be permitted under the scheme, however the Government is keen to explore opportunities to link its domestic scheme with the European Union's Emissions Trading Scheme, as well as Japan's bilateral offset scheme, down the track.

According to Point Carbon, draft regulations for the scheme could be available as early as "mid-summer" with the possibility of being approved by the end of the year.

Kazakhstan is committed to reducing its emissions by 15% compared to 1990 levels by 2020.

Asia-Pacific



Korea

South Korea approves emissions trading scheme with bipartisan support

South Korea's Parliament has passed, with bipartisan support, a bill that will see the introduction of a domestic emissions trading scheme from 1 January 2015.

The scheme is expected to cover facilities which emit over 25,000 tonnes, or companies which emit over 125,000 tonnes, of carbon dioxide per year. More than 500 companies will be required to comply with the scheme which covers most heavy industry sectors including power, steel, cement, petrochemical, electronics and consumer industrial products manufacturing. Emissions from the covered sectors are believed to represent 60% of the country's total emissions.

Details of the scheme, such as the allocation of free permits and offsetting methodologies will be decided by the subordinate regulation later this year.

The bill provides for international collaboration and timing of the commencement of the scheme means that linkages with Australia and New Zealand's emissions trading schemes may be possible. New Zealand introduced its trading scheme in 2010, and Australia's carbon price scheme, which begins as a fixed carbon price from 1 July this year, will move to a trading scheme from 1 July 2015. China is also planning to launch a domestic emissions trading scheme in 2015.

South Korea's emissions trading scheme is arguably the most significant step the country has taken towards achieving its voluntary commitment to reduce emissions by 30% by 2020 compared to business as usual levels.

Asia-Pacific

New Zealand

New Zealand to limit use of international offsets in emissions trading scheme

The New Zealand Government has proposed a series of changes to its emissions trading scheme as part of a consultation document released in April. The changes would result in amendments to the Act, and follow on from the first statutory review of the scheme carried out last year.

Among the amendments being considered, are limiting the use of international permits in the scheme and further capping the price of carbon at NZ\$25 for the next three years. Currently the scheme allows participants to purchase both New Zealand Units (NZUs) and other prescribed Kyoto units (predominately CERs) to satisfy emissions trading scheme obligations. To the extent a participant in the scheme is unable to purchase units for less than NZ\$25 per unit, until 31 December 2012 they can purchase units from the New Zealand Government at a fixed price of NZ\$25 (US\$19) per unit. It is proposed this concession be extended for a further three years until 31 December 2015.

Further, under an existing concessionary “one-for-two obligation” due to end on 31 December 2012, participant companies in the stationary energy, industrial processes and liquid fuels sectors are required to “pay” for just half of their emissions. The application of this concession is to be extended and phased out on a graduated basis over a further three years.

The consultation document also proposes to enable New Zealand’s Government to auction NZUs within an absolute emissions cap.

New Zealand carbon prices have tumbled in recent months, in line with global prices. The low price of foreign offsets has meant that the New Zealand market has been flooded with cheap foreign offsets, undermining the current domestic investment in emissions reduction through forestry and other removals. The restriction of international units is intended to encourage participants to purchase units from either New Zealand sources or through the proposed auction system. It is also

intended that the amendments set out in the consultation document will help drive up carbon prices, as well as curb domestic emissions through the generation of domestic offsets.

A number of changes are also proposed in the forestry sector.

Many of the proposed changes follow the recommendations of last year’s independent review, however the recommendation to retain New Zealand’s agriculture sector in the scheme with effect from 2015 has been ignored. Legislation will be introduced to expressly exclude agriculture from the scheme until there are known available technologies to reduce agricultural emissions and international competitors also take sufficient action to address agricultural emissions. The waste and synthetic gases sectors will join the scheme next year.

New Zealand is committed to reducing its emissions by 10% to 20% by 2020, and by 50% by 2050, compared to 1990 levels.



Asia-Pacific

Vietnam

Vietnam to set emissions reduction targets as part of broader climate plan

According to local media Vietnam News Agency, Vietnam will soon unveil plans to reduce the country's greenhouse gas emissions in the agriculture and forestry sectors by 20% by 2020 compared to 2005 levels. These sectors accounted for approximately 21% of Vietnam's GDP in 2010.

The new targets form part of a broader plan currently being developed by the Ministry of National Resources and Environment (MoNRE), which will be put forward to the Government for approval. According to Vietnam News Agency, the plan proposes to introduce several measures to help Vietnam realise the new emissions reduction target, including energy efficient technologies and increasing the share of renewables in the country's energy mix. The plan reportedly also seeks to enhance control over management and trading of carbon credits, develop a domestic carbon trading market and promote participation international markets.

Earlier this year, the World Bank approved the first of three operations under the Vietnam Climate Change Development Policy Operation which will assist the Government to develop and adopt adaptation and mitigation policies, and strengthen institutional capacity to promote climate resilient and lower carbon intensity development. Vietnam is also one of fifteen countries to have expressed interest in the World Bank's Partnership for Market Readiness (PMR) programme which supports less-developed countries to implement programmes to cut national emissions.

In contrast to these latest emissions reduction initiatives, Vietnam looks to be shifting away from energy generated from hydro power plants and becoming more dependent on thermal power, especially coal-fired power. According to the Q1 2012 BMI Vietnam Power Report, hydropower accounted for 37.6% of Vietnam's total generating capacity in 2011, followed by gas (31.7%), coal of (18.3%), oil (5.4%) and small hydro and renewable energy plants

(2.3%). By 2015, however, when total generation capacity is forecast to reach 26,911MW, coal is expected to be the country's largest fuel source (53.4%), followed by hydropower (28.3%), gas (11.0%), imported hydropower (2.4%) and small hydro and renewable sources (4.9%), according to forecasts contained in the Electricity Master Plan of state-owned utility company, EVN. As of November last year, 77% of Vietnam's planned or under construction power capacity is from thermal sources, according to BMI, and EVN has outlined a plan to build 17 new coal-based power plants by 2020.

Global

Renewed commitment from governments at third Clean Energy Ministerial forum

For two days in April, energy and environment ministers from 22 governments around the world and the European Union met in London for the third annual Clean Energy Ministerial (CEM) forum. The CEM meeting, which was first launched by the United States in 2010, promotes international collaboration between governments and the private sector in the area of clean energy.

At the close of this year's CEM meeting, participating countries, together with leaders from the private sector and civil society, announced renewed commitments aimed at improving energy efficiency, increasing the share of renewable energy in the world's energy mix and ensuring universal access to energy. The commitments made at this year's CEM forum all support the 2030 goals of the UN Secretary-General's Sustainable Energy for All (SE4All) initiative.

On the theme of energy efficiency, the 16 governments participating in the Super-efficient Equipment and Appliance Deployment (SEAD) initiative made renewed commitments to working together, and with the private sector, to improve the energy efficiency of equipment and appliances globally. Developments under the SEAD programme included the launch of a new public-private partnership called the Efficient Product Promotion Collaborative, expansion of the Global Efficiency Medal competition, and announcement of a new programme to accelerate the take up of efficient lighting around the world, in collaboration with the UN Environment Program's en.lighten initiative.

On renewable energy, Denmark, Germany, and Spain launched a global renewable resource atlas, which provides a basis for assessing the potential for solar and wind energy in different countries, while the United Kingdom pledged £60 million to support the development and demonstration of Carbon Capture and Storage (CCS) technology in developing countries.

On enhanced universal energy access, the CEM meeting saw the launch of the Global Lighting and Energy Access Partnership (Global LEAP) and Lighting India initiative, which will be affiliated with the new partnership. Lighting India will build on the success of the Lighting Africa programme through which quality off-grid lighting devices have reached 2.5 million people in Africa, according to the Clean Energy Ministerial website.

Governments represented at this year's CEM forum included Brazil, Canada, China, Denmark, the European Commission, Finland, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Norway, Russia, South Africa, Spain, Sweden, the United Arab Emirates, the United Kingdom, and the United States.

Global

World gathers for Rio+20 to build “the future we want”

From 20 to 22 June, government and business leaders, members of civil society and the world's press will convene in Rio de Janeiro for the Rio+20 UN Conference on Sustainable Development. PwC will be on the ground in Rio+20, supporting organisations such as the UN Global Compact and the World Business Council for Sustainable Development (WBCSD) to ensure the voice of the private sector and other non-governmental representatives is heard during the negotiations.

Rio+20 marks the 20 year anniversary of the UN Conference on Environment and Development in Rio, a ground-breaking conference which put climate change and biodiversity on the global political agenda. The 1992 Conference, commonly referred to as the Earth Summit, gave rise to the first Convention on Biodiversity (CBD) and launched the UN Framework Convention on Climate Change (UNFCCC) to address climate change and later delivered the Kyoto Protocol. The 1992 Earth Summit inspired a generation.

Whilst the sustainability agenda has changed dramatically over the past 20 years, with now a much stronger evidence base and understanding of the scale of our environmental impacts, the issues being addressed at Rio+20 are no less daunting. The overall themes of Rio+20 are a green economy in the context of sustainable development and poverty eradication, and the institutional framework for sustainable development. Cutting across these themes are seven areas needing priority attention, including decent jobs, energy, sustainable cities, food security and sustainable agriculture, water, oceans and disaster readiness.

Unlike the annual UNFCCC process, which centres on the delivery of a binding treaty, the Rio+20 conference is focused on leadership and securing renewed commitment from all parts of society to drive the sustainability agenda forward. Governments, business, civil society and the media therefore have a unique opportunity to engage in debate, without being bound by a treaty, and commit to working together to achieve real progress toward “the future we want”, the official UN slogan of Rio+20.

A recent PwC poll of CEOs internationally found very mixed views on prospects for progress at Rio, with around half of respondents expecting little or none. However, if governments make significant progress towards agreeing goals and commitments, seven out of ten CEOs said that their companies would be prepared to make more ambitious pledges to take action on issues such as water stress, food security, resource scarcity and biodiversity loss.

Interestingly, the results of the poll suggest that while global summits, such as Rio+20, help to focus the minds of governments and businesses, CEOs have greater confidence in a bottom up approach. Over a quarter of CEOs polled said that global goals and targets, and regulations/treaties like the Kyoto Protocol, are ineffective in driving action. This is contrasted with more than nine in ten CEOs polled indicating that private sector investment alongside regional or national regulation and fiscal measures such as taxation and incentives, are the most effective mechanisms for driving change across the sustainability agenda.

More results from the CEO poll on sustainable development are available on [PwC's Rio+20 website](#).

What this means for you

Malcolm Preston – Global Leader, Sustainability and Climate Change
– “Regardless of the outcome of Rio+20, what businesses need is good regulation. Governments need to provide a policy framework that is TLC (that is, it embeds transparency, longevity and consistency) to allow business leaders to make the sound, long term business decisions needed to move the sustainability agenda forward.”

Global



The road to Qatar: What the UN climate talks in Bonn delivered

Late last month, governments from around the world gathered in Bonn, Germany for this year's first session of the United Nations Framework Convention on Climate Change (UNFCCC) climate talks, in the lead-up to the annual UN climate change summit in Doha, Qatar in November. 195 parties of the UNFCCC attended the two-week meeting, where negotiations centred on the development of the Durban Platform for Enhanced Action and the duration of the second commitment period under the Kyoto Protocol.

The Durban Platform for Enhanced Action, which was agreed on at last year's annual summit in Durban, South Africa, commits all countries "to develop a protocol, another legal instrument or an agreed outcome with legal force under the United Nations Framework Convention on Climate Change applicable to all Parties". An objective of the intercessional meeting in Bonn was to develop the Durban Platform work programme, which is to be completed no later than 2015, before the protocol, legal instrument or agreed outcome comes into force from 2020. Talks in Bonn, however,

remained in gridlock for much of the two-week meeting. The EU is accusing China and many other developing countries of backtracking on the commitments made in Durban, while some of the major emerging economies claim the EU, United States and other developed countries, are shifting the burden to the developing world and avoiding commitments to make deeper emissions cuts. It was not until the last day in Bonn that some form of agenda for the work programme was reached, leaving a lot of work to be done in Doha later this year, including a decision on who will chair the negotiations.

The Bonn meeting made some progress on the second commitment period of the Kyoto Protocol which is to commence on 1 January 2013, with agreement being reached on many of its technical and legal details. Negotiations stalled, however, over its length. The EU, which includes the only major developed countries to be bound under the second commitment period, argued that its length should be 8 years, to coincide with the bloc's 2020 emissions reduction targets. Less developed countries, however, argued that it should only be 5 years. Agreement on the second

commitment period's duration must be reached before the close of negotiations in Doha in November, as the Kyoto Protocol's first and current commitment period expires on 31 December this year.

In the background, the first meeting of the Green Climate Fund, which was also born of the Durban summit last year, has been delayed for the second time. The meeting was to be held in late April before being postponed to late May. The meeting is now scheduled to be held this or next month.

The Green Climate Fund is a US\$100 billion per year fund to assist poorer nations to reduce greenhouse gas emissions and adapt to the impacts of climate change. The Durban summit last year saw agreement over the broad design of the Green Climate Fund and a commitment to "operationalise the Fund in an expedited manner", however, there is still no agreement on the exact source of the funds. The reason for the further postponement of the first meeting of the Green Climate Fund, is reportedly due to lack of agreement over which countries will sit on its board.

Global

Four out of five market experts call for intervention in EU ETS

PwC and the International Emissions Trading Association (IETA) have launched the seventh annual IETA GHG Market Sentiment Survey. The results of the survey centre on price expectations and intervention in the EU Emissions Trading Scheme (ETS).

With carbon prices in the EU ETS having fallen by 61% in just 12 months, expectations for future EU carbon prices through to 2020 have dropped. Based on the survey, expectations for EU Allowances are 36% lower than three years ago (down to €19 from €30 in 2009) and 45% lower for UN carbon credits known as Certified Emissions Reductions (CERs). Falling emissions due to reduced industrial activity during the 2008-09 recession, and worries about future Eurozone growth, are said to have contributed to the lowered expectations for future EU carbon prices.

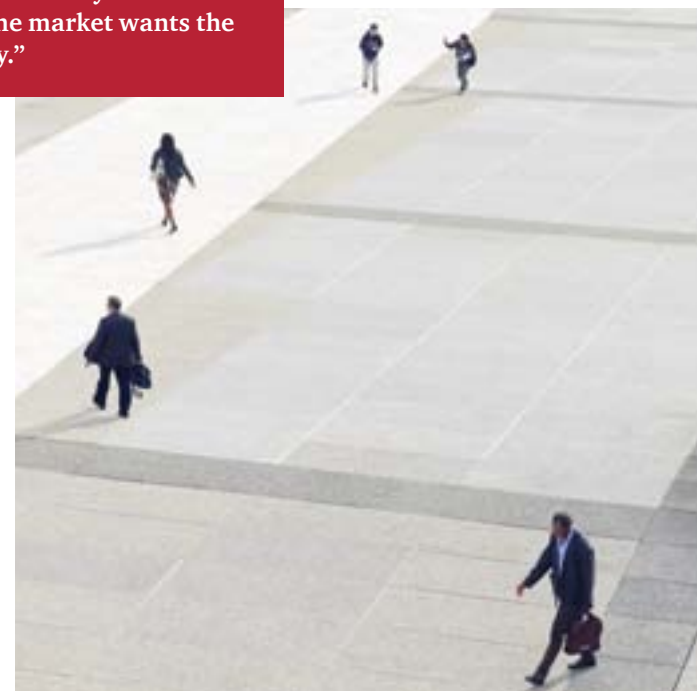
Despite the pessimism survey respondents say that market mechanisms remain at the forefront of policies to tackle emissions growth. Many also believe that new demand will be injected into the global market by viable markets emerging by 2020 in Australia, China and South Korea, and a majority thinks a federal US scheme will also emerge before 2020.

Four in five market experts are in favour of intervention in the EU ETS to support the price of carbon allowances but warn that periodic tinkering risks “turning the market into a casino”. Raising the level of ambition from 20% to a 30% emissions reduction target by 2020, a permanent set aside of credits and an auction reserve price in the EU ETS, are the favoured measures for intervention.

Late last year the European Parliament’s Industry, Research and Energy committee backed amendments to a proposed Energy Efficiency Directive which “may include withholding of the necessary amount of allowances” in the third phase of the ETS, between 2013 and 2020. The amendments are expected to go to a full plenary vote in the European Parliament this month.

What this means for you

Jonathan Grant – PwC United Kingdom –
“Market purists might argue that intervention risks undermining the stability of the market, but the reality is that the continued policy unpredictability and uncertainty is undermining it more. The market wants the EU to be decisive quickly.”



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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