www.pwc.com/globalgreenpolicyinsights

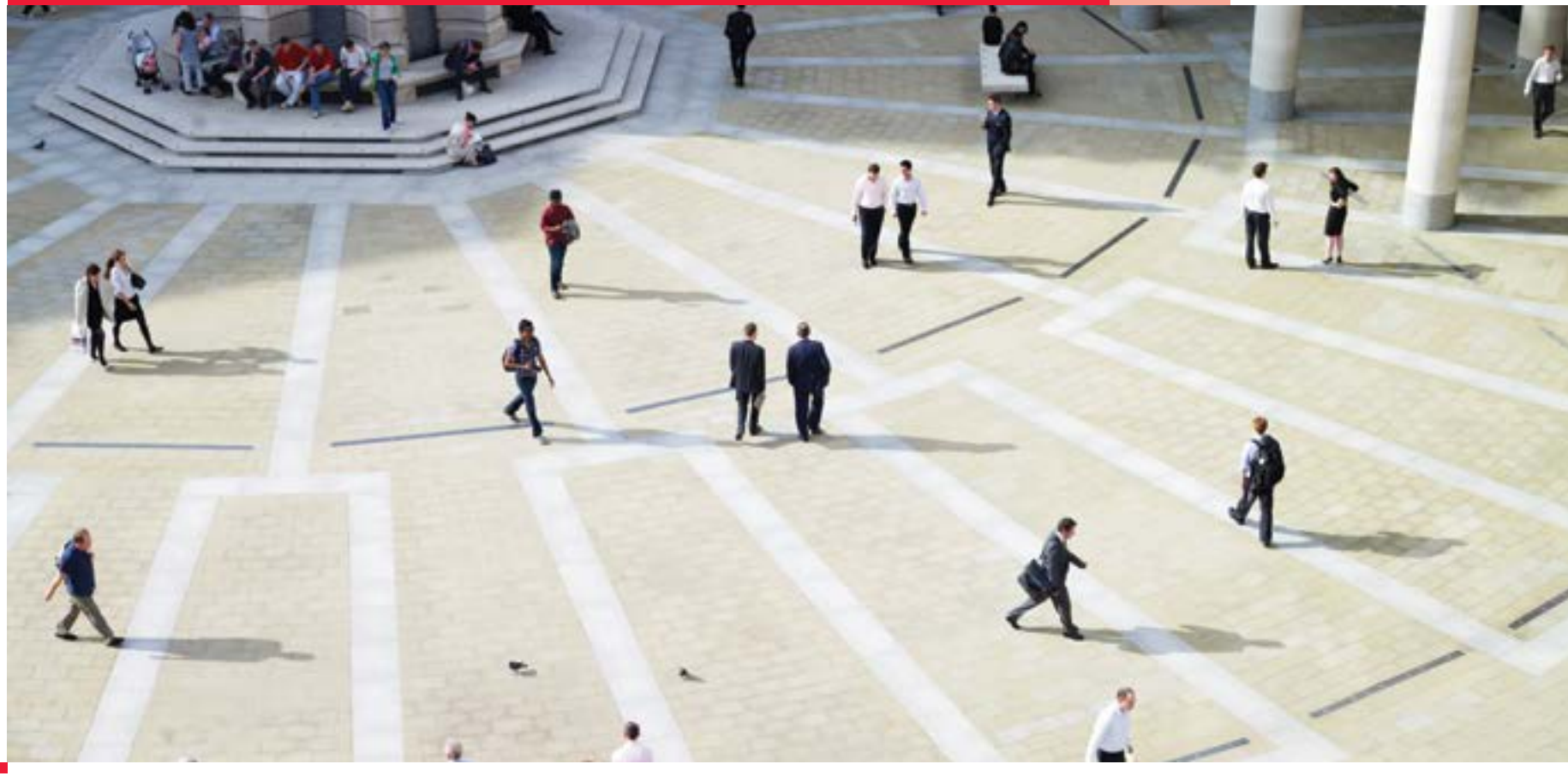
Click to launch

Global Green Policy Insights

Your environmental tax and regulation update

1 February 2013

In this issue:



pwc

Happy New Year and welcome back to Global Green Policy Insights for 2013

As 2012 drew to a close, government leaders from around the world gathered in Doha, Qatar for the annual United Nations (UN) climate change summit. As expected, the 2012 summit – known as COP18 – was more of a milestone than a landmark event in its own right. In this issue of *Global Green Policy Insights* we explore the outcomes of COP18, as well as our expectations for climate negotiations through 2013.

Outside of the UN process, cross-party policymakers from 33 major economies met in January for the Global Legislators' Organisation's (GLOBE) inaugural Climate Legislation Summit in London. The organisation's third Climate Legislation Study was unveiled at the summit, which showed that during 2012, 32 of the 33 major economies represented made progress, or are progressing with, significant climate or energy related legislation at a national level. This is an encouraging development in the face of continued, slow progress at the global level.

In this edition of *Global Green Policy Insights* we highlight some of the most recent national and subnational green policy developments, including the January launches of carbon markets in California, Quebec and Kazakhstan, as well as plans for the introduction of a carbon market in Vietnam. We take a look at Switzerland's new carbon law, the details of United Kingdom's carbon price support programme and Japan's agreement to establish a bilateral carbon offset scheme with Mongolia.

Support schemes for renewable energy have continued to be a hot topic in recent months, with the Czech government approving a National Action Plan for clean energy, France doubling its target for solar energy and Italy approving a new renewable heat incentive scheme. Germany also late last year introduced new laws for offshore wind to accelerate private investment in the sector.

We hope you find this issue of *Global Green Policy Insights* informative, and we look forward to continuing to share with you throughout 2013 the latest developments in environmental taxes, regulations and other green policies from around the world.

Best wishes

John Preston
Global Tax Policy Leader
T: +44 (0)20 7804 2645
E: john.preston@uk.pwc.com

In this issue

Europe, Middle East and Africa

European Union

European Commission unveils seventh Environmental Action Programme

The European Commission unveiled its proposal for a seventh Environmental Action Programme in late November, to replace its predecessor which expired in July. Environmental Action Programmes have been in place since the 1970s, providing overarching frameworks to guide the development of environmental policies across Europe.

The proposal for "a General Union Environmental Action Programme to 2020" – also titled "Living well, within the limits of our planet" – sets out nine priority objectives in environment policy for the European Union (EU) and Member States for the period to 2020. These priority objectives include protecting, conserving and enhancing the EU's natural capital, turning the EU into a resource-efficient, green and competitive low-carbon economy, safeguarding EU citizens from environment-related pressures and risks to health and wellbeing, maximising the benefits of EU environment legislation, improving the evidence base for environment policy, securing investment for environment and climate policy and getting the prices right, improving environmental integration and policy coherence, enhancing the sustainability of EU cities and increasing the EU's effectiveness in addressing regional and global environmental and climate challenges.

As part of its objective to secure investment for environment and climate policy, the European Commission suggests that the 'polluter-pays principle' should be applied more "systematically". It calls for the progressive "phasing out (of) environmentally harmful subsidies, increasing the use of market-based instruments, including taxation, pricing and charging, and expanding markets for environmental goods and services, with due regard to any adverse social impacts".

In an effort to maximise the benefits of EU environment legislation, the proposal also calls for 'partnership implementation agreements' to be drawn up between the European Commission and Member States. The agreements would aim to ensure effective delivery of policies in Member States, and provide for more effective inspections and surveillance, as well as complementary capacity at the EU level for additional support.

The proposal for the seventh Environmental Action Programme was first approved by the ministers of Member States in June last year, and must now be approved by the European Parliament and European Council before becoming law.

Europe, Middle East and Africa

PwC: Outlook for the European carbon market in 2013

In the spring this year, the EU is expected to agree on the so-called 'backloading proposal' to delay the auctions of a portion of allowances during Phase 2 of the EU Emissions Trading Scheme (ETS). It had been expected that the European Commission would ask Member States to vote on the proposal at a Climate Change Committee meeting in December, however this did not eventuate.

Under the backloading proposal, the volume of allowances auctioned this year would be reduced by 400 million, by 300 million in 2014 and by a further 200 million in 2015, in an effort to prop up carbon prices in the short-term. But this prop will be removed later in Phase 3 as these allowances would be reintroduced into the market, with 300 million allowances re-entering in 2019 and a further 600 million in 2020.

Late last year, the European Commission also published its plans for long-term, structural reforms of the market. The report set out six options for structural changes to the EU ETS, including increasing the EU's emissions reduction target from 20% to 30% below 1990 levels by 2020, permanently retiring a certain number of phase three allowances from the ETS, increasing the annual reduction rate in the number of allowances from 1.74%, extending the scope of the EU ETS to cover new sectors, limiting access to international credits, and introducing price management mechanisms such as a price management reserve. A public consultation on the proposals for such a long-term fix is open until the end of this month.

In some recent analysis undertaken by PwC, we found that both bold policy intervention and economic growth of more than 2% will be needed to prompt Europe's carbon market to return to historic levels of between €15 (USD$19.95) to €20 (USD$26.60). As a result we expect to see the EU carbon allowance price remaining in single digits over the course of 2013.

It is unlikely that 2013 will bring any relief to the Certified Emission Reductions (CER) market either, where prices are now measured in cents rather than Euros. CER carbon credits are generated from emissions reductions achieved through Clean Development Mechanism (CDM) projects approved under the rules of the Kyoto Protocol.

The chronic lack of demand for CER credits is not new, but it has been exacerbated by the decision taken at last year's climate change summit in Doha that only signatories to the second Kyoto period will be eligible to use CERs towards achieving their emissions reduction targets.

What this means for you

Jonathan Grant – Director, PwC United Kingdom – "It is easy to think that with such low prices that the CDM is broken and not worth fixing. But we expect that market mechanisms will continue to feature prominently in climate change negotiations in 2013. One bright spot on the horizon is work by the World Bank Partnership for Market Readiness programme to bring together major developed and emerging economies to support the implementation of new market mechanisms to tackle emissions growth."

Europe, Middle East and Africa

EU introduces rules on shipping sector's sulphur emissions

New rules on the sulphur content of shipping fuels came into force in late December, according to a European Commission press release.

The Directive is based on International Maritime Organisation (IMO) standards, and its introduction means the EU is a step closer to implementing the commitments its Member States in the IMO unanimously made in 2008. The IMO is the UN agency responsible for shipping safety and security, and the prevention of marine pollution by ships.

The new Directive calls for a progressive decrease in the sulphur content of shipping fuels from an existing 3.5% to 0.5% by January 2020. For the most fragile ecosystems, such as the Baltic and North Seas, including the English Channel, the sulphur content will be limited to 0.1% by 2015.

Under the Directive, ships can employ the use of gas cleaning systems or LNG as alternatives to low sulphur fuels to comply and according to the European Commission, a range of EU transport funding instruments, including the European Investment Bank, are available to provide financial support to green maritime-based projects.

Member States are required to align their shipping fuel legislation with the new Directive by 18 June 2014.

In a separate development, the European Commission also recently announced plans to introduce rules that would require ships to monitor, report and verify (MRV) their carbon dioxide emissions beginning this year. According to ENDS Europe, the rules would form part of a broader set of regulations covering international shipping in European waters, which could include market-based mechanisms such as emissions trading or a fuel charge.

The announcement late last year was seen by many as a signal to the IMO that it is not moving fast enough to arrive at a global approach to reduce carbon dioxide emissions in the shipping sector. The IMO's marine environment protection committee (MEPC) next meets in May, when the use of market-based measures to address emissions carbon dioxide reduction in shipping will be debated.

Europe, Middle East and Africa

Czech Republic

Czech government approves to National Action Plan for clean energy

The government of the Czech Republic has approved the country's National Action Plan for energy from renewable sources, according to Prague Monitor news source. The announcement was made by the Prime Minister at a press conference late last year.

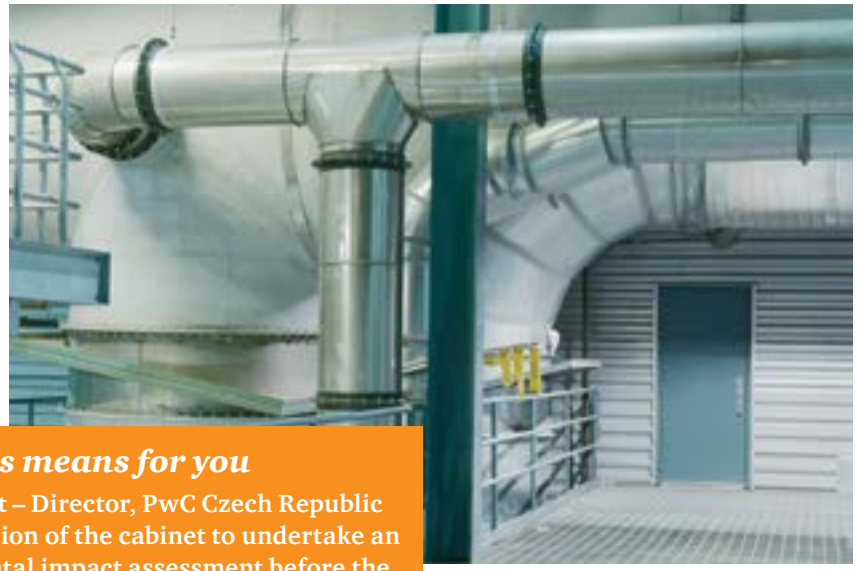
The National Action Plan, which was drafted by the Ministry of Industry and Trade, sets out a roadmap for the country to increase the share of renewable energy in its total energy consumption to 13% by 2020, in line with EU mandates. The Plan expects that the contribution of energy from renewable sources to total energy consumption will reach up to 14% by 2020.

According to Prague Monitor, the country's Minister for Industry and Trade said that under the Plan, support for renewable energy generation will be limited from 2014 onward as the support represents "a considerable burden for the Czech industry". The Plan also confirms that all operational support for renewable energy generators will cease once the EU target of a 13% share of total energy consumption is reached.

Every second year the Plan may be revised, Prague Monitor reported, however it cannot deviate from the minimum target of 13%, as set by the EU.

The Plan also considers the country's energy policy over the next 20 to 30 years, which includes ambitions for nuclear energy to contribute up to 55% of the country's energy mix.

The cabinet has now called for an environmental impact assessment of the policy to be undertaken, before giving its final approval.



What this means for you

Martin Scott – Director, PwC Czech Republic – "The decision of the cabinet to undertake an environmental impact assessment before the final approval is very positive. We hope that representatives from business and industry will be able to contribute to the assessment, and that they will be open to doing so."

Europe, Middle East and Africa

France

France doubles target for solar energy

Earlier this year, France unveiled its ambitions to double its annual solar energy capacity to 1,000MW. The government plans to achieve this target through extending and expanding an existing programme of tenders for medium and large-scale solar projects, ENDS Europe reported. Small-scale projects may also become eligible for bonus subsidies under the plan.

According to ENDS Europe, preference will likely be shown towards ground-mounted projects that are developed on existing industrial sites or polluted land, rather than on farm or forest land, as well as those projects that employ solar panels produced in the EU. The first tenders will open this or next month, ENDS Europe reported.

The new targets were first agreed at an environmental policy conference in September, during which the French president also called for more ambitious carbon dioxide emissions reduction targets.

In his address, the president proposed emissions reduction targets of 40% by 2030, and 60% by 2040 compared to 1990 levels, which far exceed the 20% emissions reduction target set by the EU for 2020.

According to Reuters, the conference marked the launch of a review of France's energy policy, which aims to increase the share of renewables in the country's energy mix and reduce its dependency on nuclear energy. France is the world's most nuclear-dependent country, with nuclear energy currently accounting for 75% of its energy supply, Reuters reported.

The former French administration had set a target to have 23% of the country's energy consumption come from renewable sources by 2020. Currently just 13% of the country's energy supply is from renewable sources, of which less than 0.5% is from solar, according to Reuters.

France is expected to introduce a new energy bill mid-this year.

Back to map view | Read next article

Europe, Middle East and Africa

Germany

Germany's new offshore wind law takes effect

On 14 December the Bundesrat, the upper house of the German parliament, approved legislation that limits the damages grid connectors must pay to wind farm operators for delays in connecting offshore wind parks to the power grid and for property damages. The law, which took effect on 28 December having previously passed the lower house, is designed to accelerate the development of offshore wind farms by incentivising private investment in the sector.

Wind farm operators will be partly relieved from grid connection risks under the new law, as it provides for an equalisation of burdens among grid connectors who, in turn, can largely allocate the associated costs to electricity consumers, depending on the degree of fault of the grid connector. In the event that a grid connector has unintentionally caused a delay or disruption to the connection of an operable wind farm through gross negligence, the grid connector's own contribution is limited to 20% where damages could be up to €200 million (USD$266.6 million) per calendar year. For damages in excess of this amount, the grid connector's contribution drops to 15% for damages up to €400 million (USD$533.2 million), 10% for damages up to €600 million (USD$799.8 million) and 5% for damages up to €1 billion (USD$1.33 billion) per calendar year.

Where the event was not caused by gross negligence, the contribution is limited to €17.5 million (USD$23.3 million) per damaging event. However, gross negligence is assumed where a wind farm operator has suffered damages due to a delay or disruption to the connection of a wind farm.

In the case of unintentional property damages, a grid connector's liability is now limited to €100 million (USD$133.3 million) per damaging event.

Since its approval by the German federal cabinet on 29 August last year, the new legislation, formally the 'Third Act Revising the Legislation Governing the Energy Sector', has undergone various modifications.

TenneT, the power grid operator responsible for connecting offshore wind parks to the German power grid, has welcomed the changes to Germany's energy law, saying that they create more certainty for investment in offshore wind energy.

Germany passes ordinance to prevent power blackouts and approves plans to expand power grid

In December last year, Germany's parliament passed a new ordinance to prevent power blackouts and ensure continued power supply as the country transitions away from nuclear power towards renewable energy sources. According to the ordinance, large electricity consumers could be required to disconnect from the power grid in the event of serious grid problems.

Under the new law, system operators can tender power capacities of 3,000MW per month to large electricity consumers, half of which can be disconnected within seconds and the other half within 15 minutes in the case of imminent grid problems. These consumers would receive €20,000 per MW (USD$26,670) per year in return for agreeing to disconnect if necessary. In the actual event of a grid emergency, the consumer must disconnect and would receive an additional amount of up to €500 (USD$667) per MW. These costs would be passed on to electricity consumers.

While the government emphasises the importance of the new regulation for the stability of the power grid, critics argue that large electricity consumers will be subsidised at the expense of private consumers.

Days after the ordinance was passed, the federal government announced that it would build three new electricity highways in Germany. The cabinet, headed by Chancellor Angela Merkel (CDU), approved the construction of 2,800km high-voltage lines to transport wind power from North Germany to the southern parts of the country.

In addition, 2,900km of the existing high-voltage grid shall be optimised to accommodate for intermittent supply of renewable energy.

Back to map view | Read next article

Europe, Middle East and Africa

Ireland

Ireland increases motor tax to reflect automobile carbon emissions

As part of the 2013 Budget announced late last year, Ireland's government confirmed changes to the country's motor tax regime to more closely align the tax with the carbon dioxide emissions of vehicles. Under the changes, new motor tax bands for low emission cars have been introduced to promote the uptake of the "very cleanest cars".

According to a government website, 92% of private motor vehicles were in low emissions 'A' and 'B' bands in Ireland in 2012. The Minister for the Environment, Community and Local Government explained that the "necessary motor tax increases are being made to prevent further erosion of this important part of the tax base". He also added that "introducing a Zero Emissions Band for electric cars and a reduction in motor tax for these is further proof of (his) commitment to a cleaner environment".

According to the 2013 Budget announcement, from 1 January the motor vehicle carbon tax has increased by 7.5% on most categories of vehicles, meaning a flat increase in the tax of between €10 (USD$13.33) and €92 (USD$122.62) per annum. The country's lowest emitting vehicles are taxed at the lower end of this spectrum.

Ireland first changed the structure of its motor tax regime in 2008 to link it with a vehicle's carbon dioxide emissions. In another move to promote the uptake of clean cars, the government announced in the budget that it would cut electric vehicles' registration tax by 25%.

The 2013 Budget also confirmed that the country's carbon tax on fuels would be expanded to include peat and coal. From 1 May, peat and coal will be introduced at a rate of €10 (USD$13.33) per tonne of carbon, before increasing to €20 (USD$26.66) per tonne from 1 May 2014.

Ireland first introduced a carbon tax on fuels as part of the 2010 Budget at a rate of €15 (USD$19.99) per tonne of carbon. The rate increased to €20 (USD$26.66) on 1 January 2012 and is expected to rise to €30 (USD$39.99) by 2014. Petrol, diesel, kerosene, marked gas oil, liquid petroleum gas, fuel oil and natural gas became subject to the carbon tax last year.

In separate developments, the Ministry of Environment, Community and Local Government late last year published its National Climate Change Adaptation Framework, and responded to the National Economic and Social Council's interim report on climate change policy development. According to the Irish Times newspaper, the National Climate Change Adaptation Framework calls for government departments and agencies to develop sectoral plans, and for local authorities to incorporate climate change adaptation strategies in all county and city-based plans by mid-2014.

At the time of writing, Ireland's government was also expected to soon publish a draft of its new climate change law, after its release date was delayed late last year.

Europe, Middle East and Africa

Israel

Israel introduces government programme to promote investment in venture-capital-backed companies specialising in alternative transportation fuels

On 26 December, the Israeli Ministry of Industry, Trade and Labour issued a Director General Directive which outlines plans to promote investment in venture-capital-backed companies specialising in the field of alternative fuels for transportation.

The new programme, which encourages collaboration between the Israeli government and local and international private sector investors, is part of a government resolution known as the "Activation of a National Program for Developing Technologies Reducing the Global Utilisation of Petroleum for Transportation Purposes and for Augmenting Related Knowledge-Based Industries". Under the resolution, the government will direct 400 million NIS (USD$107 million) between 2011 and 2020 towards programmes that promote investment in the development of alternative transportation fuel technologies.

The government programme is targeted at Israeli companies that have the primary business activity of researching, developing and implementing innovative, alternative transportation fuel technologies. Petroleum-saving technologies, such as more efficient propulsion systems and automotive engineering solutions, alternative fuel solutions, innovative propulsion systems and fuel cells are included in the framework of this programme, however electricity generation technologies are not.

Under the programme, government loans will be granted to eligible companies based on the cash capital investment of the private investor. Government support will be capped at 50% of the private investor's investment in the company, subject to certain conditions.

The range of loan approvals is between 750,000 NIS (USD$200,000) and 12 million NIS (USD$3.2 million), where the capital investment of private investors is between 1.5 million NIS (USD$400,000) and 24 million NIS (USD$6.4 million). The loan is required to be repaid to the government in the form of royalties from sales that derive from the technology developed using the loan, or alternatively, by way of company shares.

What this means for you

Eitan Glazer – Energy and Cleantech Practice Leader, PwC Israel –"This programme is an excellent opportunity for international investors and venture capitalists that are looking to invest in alternative fuels technologies. The government plan will reduce the risk on the investors and enable technology ventures to leverage on governmental funds to expedite the R&D process and shorten the time to market."

Europe, Middle East and Africa

Italy

Italy approves renewable heat incentive scheme

Late last year, Italy's industry, agriculture and environment ministries approved a new incentive scheme for the generation of renewable heat from biomass, thermal solar and heat pumps.

A decree, dated 28 December 2012, introducing the scheme – officially named 'Mechanism of Renewable Heating Systems and Energy Efficient Measures' – was published in the Official Gazette on 2 January, according to the Global Solar Thermal Energy Council website. The new scheme came into effect on 3 January.

The incentive scheme is focused on small scale commercial and domestic projects that have, until now, received limited support. According to Platts news source, the subsidies are expected to cover approximately 40% of investment costs, and will be paid over two or five year periods, depending on the size of the project. A statement from the ministries said that eligible renewable heat projects are expected to have an average cost of "several thousand euro", Platts reported.

The new incentive programme will also subsidise the deployment of thermal insulation, condensing boilers or shading systems in government buildings, according to the Global Solar Thermal Energy Council website.

Renewable heat systems installed in existing buildings after 2 January may be eligible under the scheme which, according to the Global Solar Thermal Energy Council, is to be funded from a levy imposed on Italy's natural gas tariffs. An application must be made to the GSE (Gestore servizi energetici) within 60 days from the date of execution of the project.

Earlier last year, the Italian government approved 2 similar decrees which related to incentives for solar and other renewable sources, Platts reported. According to the latest decree, subsidies for renewable heat can only be allocated to measures that do not have access to other state incentives.

Kazakhstan

Kazakhstan launches carbon market

Kazakhstan launched Asia's first nationwide emissions trading scheme on 1 January, according to Point Carbon. A National Allocation Plan, which imposes a cap on the carbon dioxide emissions of 178 installations across the country, was approved by the government in December last year.

The trading scheme covers the emissions of the energy and mining sectors, as well as metallurgy, cement and lime production, the chemicals industry and food processing industries. Installations in these sectors that emit more than 20,000 tonnes of carbon dioxide per year will be covered by the scheme. Under the National Allocation Plan, the total emissions of installations covered by the scheme is capped at 146 million tonnes of carbon dioxide for 2013, which is the same as 2010 levels and accounts for approximately 60% of the country's total emissions, Point Carbon reported.

As of 1 January, Kazakhstan's emissions trading scheme is in a year-long pilot phase, during which installations will not be fined for non-compliance. A full seven year trading phase will commence from 2014.

Kazakhstan signed up to the second period of the Kyoto Protocol at the annual UN climate change summit in Doha late last year. Kazakhstan has previously pledged to reduce its emissions by 15% compared to 1990 levels by 2020.

Europe, Middle East and Africa

Slovakia

Slovakia proposes cuts to renewable energy subsidies

In late December, the Slovak government tabled a draft law that would cut subsidies for renewable energy generation by 20%.

The government also plans to limit access to subsidies for solar installations to those with capacity of up to 30KW. According to ENDS Europe, this maximum capacity threshold for solar had already been reduced to 100KW, to take account of a recent boom in the solar industry.

Under the draft legislation, access to subsidies for hydropower generation, which according to ENDS Europe provides Slovakia's main source of renewable energy, would be limited to projects with capacity of up to 5MW.

The government claims the changes are necessary to protect consumers and the economy from increased electricity prices, ENDS Europe reported.

It had been expected that the new law would take effect from the beginning of this year however parliamentary discussion has now been put on hold while parts of the law are redrafted.

One of the latest proposed changes to the draft law relates to an eligibility threshold for support for combined heat and power (CHP) generation, also known as cogeneration, which had been increased from 200MW to 300MW in the original draft. In response to mounting pressure from industry, the government is considering redrafting the law to extend this support to all new cogeneration plants, or where existing CHP facilities are significantly modernised, and abolish the eligibility threshold altogether. According to the government, such a move would encourage electricity producers to invest in CHP technology, as well as in new innovations.

It is unclear when the revised draft of the law will re-enter parliament for debate and approval.

Back to map view | Read next article

Europe, Middle East and Africa

Spain

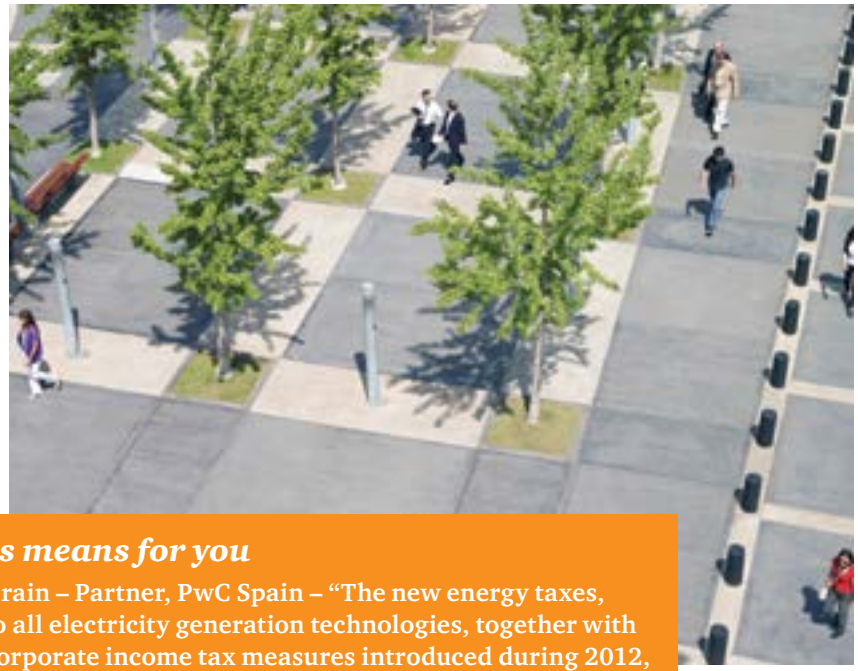
Spain's new energy taxes come into force

On 1 January, the Spanish government introduced a series of new energy taxes in an effort to prevent its €24 billion (USD$30.4 billion) electricity tariff deficit from increasing. The new package of taxes includes two nuclear taxes, changes to 'special taxes', a levy on hydro-electricity generation and a flat 7% tax on all electrical power production activities.

The nuclear taxes include a tax on the production of spent nuclear fuel and a tax on the storage of radioactive waste. The hydro-electricity generation levy applies to the use of continental waters for the production of electrical power and 'special taxes' include a 'green cent' tax which applies to natural gas, and the generation of coal power, fuel-oil and diesel. The flat 7% tax on all electrical power production activities is a direct State tax which applies to all types of facilities and energy sources.

In the final version of the law, which was approved by parliament before Christmas, the rate of the flat tax on electrical power production activities was increased to 7%, up from 6% which had been included in draft legislation published in September. The 'green cent' tax on the use of gas in industry was reduced by €0.50 (USD$0.67) per gigajoule to €0.15 (USD$0.20) in the final version of the law, down from €0.65 (USD$0.87) as originally proposed. According to ENDS Europe, this lower rate does not apply to cogeneration activities, which the COGEN Europe association claims is "not in the spirit of the (EU) Energy Efficiency Directive".

At the beginning of last year, the Spanish government suspended an existing feed-in-tariff programme which had long provided premiums for renewable energy generation. The temporary halt affected new wind, solar, cogeneration and waste-to-energy plants and became effective immediately.



What this means for you

Araceli Zatarain – Partner, PwC Spain – "The new energy taxes, that apply to all electricity generation technologies, together with other new corporate income tax measures introduced during 2012, will significantly increase the tax costs of energy companies. It is expected that the new taxes, introduced by 'Law 15/2012, December 27, of tax measures for energy sustainability', will result in increased litigation with Spanish Tax Authorities."

Europe, Middle East and Africa

Switzerland

Switzerland approves new carbon law

Switzerland's Federal Council late last year approved a new CO2 Ordinance which, along with a revised CO2 Act, provides a legal framework for the country's climate policy through to 2020. The Ordinance contains details of a series of revised provisions under the CO2 Act, which were passed by Switzerland's parliament a year earlier.

Under the CO2 Act, Switzerland is legally bound to reduce its greenhouse gas emissions by 20% compared to 1990 levels by 2020. The new Ordinance sets out the measures and instruments which have been designed to help the country achieve this target, according to a news release on Switzerland's Department of the Environment, Transport, Energy and Communications website.

Under the Ordinance, the emissions target is shared across the buildings, industry and transport sectors, with emissions reductions of 40%, 15% and 10% respectively expected to be achieved by these sectors by 2020. The Ordinance also sets out interim 2015 targets for these sectors.

An increase in Switzerland's levy on fossil fuels could also be on the cards, if the country's 2012 emissions reduction target for fossil fuels is not achieved. According to the Ordinance, the existing fossil fuel levy of 36 Swiss francs (USD$39) per tonne of carbon emissions could nearly double to 60 Swiss francs (USD$65) per tonne from 2014, with further rises in 2016 and 2018. Under the CO2 Act, the levy is capped at a maximum of 120 Swiss francs (USD$130) per tonne.

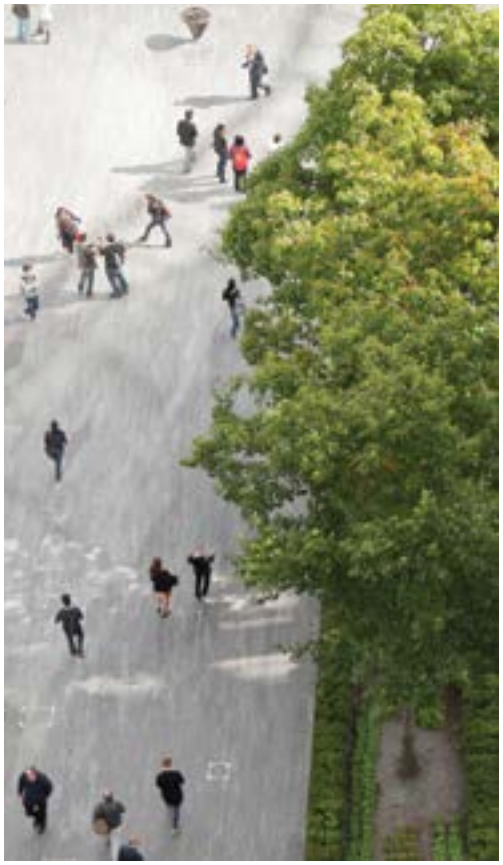
The new Ordinance confirms that revenues generated from the levy on fossil fuels will continue to fund a government programme which supports initiatives that reduce emissions from buildings, and will also contribute up to 25 million Swiss francs (USD$27 million) per year to a fund which supports investments in green technologies. Carbon intensive firms that are highly exposed to the fossil fuel levy and operate in competitive international markets will also continue to have the option to be exempted from the scheme, on the condition that they commit to reduce their emissions.

By 2020, importers of fossil fuel will be required to adopt local measures to compensate for at least 10% of the carbon dioxide emitted during their transport, according to the new Ordinance.

The Ordinance also makes clear the government's plans to link Switzerland's domestic carbon market with the EU ETS in the future, saying it will "continue to develop along EU lines with a view to combining it with the European system".

The recently approved CO2 Ordinance and revised CO2 Act came into force on 1 January.

Europe, Middle East and Africa



United Kingdom

United Kingdom unveils energy bill for Electricity Market Reform

The United Kingdom's much-anticipated Energy Bill was presented to Parliament by the Energy and Climate Change Secretary at the end of November last year. The bill provides a roadmap for the United Kingdom to transition away from its fossil fuels dominant electricity market towards a diverse, low carbon economy. A draft of the bill was first published in May last year, following the release of the government's Electricity Market Reform white paper in 2010.

According to the Energy and Climate Change Secretary, "the Bill will support the construction of a diverse mix of renewables, new nuclear, gas and CCS, protecting our economy from energy shortfalls and significantly decarbonising our electricity supply by the 2030s as part of global efforts to tackle climate change".

The bill contains 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 the creation of a 'capacity market' to provide back-up to intermittent renewable and nuclear supply.

According to the bill, CfDs will be available to investors in renewable, new nuclear and carbon capture and storage (CCS) projects, to assist in securing the large upfront capital costs for low carbon infrastructure and at the same time protecting consumers from rising energy bills. Investors will receive guaranteed 'strike prices' for energy generated under the CfD scheme to stabilise investor revenues, in an effort to attract investment in renewable, nuclear and CCS technologies. The government says it will consult on the first set of CfD strike prices in the middle of this year, and plans to announce strike prices for the period to 2018 by year-end.

As recommended by the Energy and Climate Change Committee, a new Government-owned company will be established as a single counterparty to the CfDs with eligible generators. In an effort to support the competitiveness of the United Kingdom's energy intensive industries, exemptions from the additional costs associated with long-term CfDs may be available, subject to the European Commission's State Aid clearance.

The bill sets new EPS which limit the carbon emissions of new power plants to 450g/kWh. Plants fitted with CCS technology, which to date remains unproven on a commercial scale, would be exempt from the EPS.

A carbon price floor will be introduced from 1 April this year, at a rate of £16 (USD$25.30) per tonne of carbon emissions. The price floor will increase to £30 (USD$47.44) per tonne by 2020. Details of the carbon price floor are contained in the **2013 Finance Bill**, which was published in December last year.

Continued ▶

Europe, Middle East and Africa

A 'capacity market' will be created to ensure the security of energy supply, by preventing power black-outs resulting from intermittent renewable power supply and providing additional supply at peak demand times. The first 'capacity auction' will take place next year, for delivery in the winter of 2018/2019.

A proposed decarbonisation target for the power sector was not included in the bill, as had been widely speculated. According to the Department of Energy and Climate Change (DECC) website, the government will instead wait until after 2016 to set a decarbonisation range for 2030, once the Climate Change Committee has advised on the fifth Carbon Budget which covers the period from 2028 to 2033.

DECC estimates that the reforms will lower household energy bills by £94 (USD$148.64) or 7% in 2020.

The energy bill is expected to achieve Royal Assent this year, before taking effect from 2014.

What this means for you

Ronan O'Regan – Director, PwC United Kingdom – "The Energy Bill represents the latest step on the road to reforming the UK power sector. It is too early to say whether it will succeed in attracting the level of investment to meet our renewable energy targets and there are still some outstanding matters to be resolved around the detail of how the reform proposals get implemented. In parallel with the Energy Bill, the government released their gas generation strategy which sets out plans for significant investment in gas fired generation. The government are hedging their energy policy bets to allow for more dependence on gas if the potential for shale gas (supported through tax incentives) in the United Kingdom starts to approach that seen in the United States. But it may be difficult to reconcile a gas growth strategy with moves to fully decarbonise the energy sector. This is only achievable if new gas plants are increasingly built with carbon capture and storage (CCS) in mind. But early experience with pilot projects in the UK has been one of delays."

United Kingdom confirms details of carbon price support, reforms CRC energy efficiency scheme

In December last year, the United Kingdom government presented the Chancellor's Autumn Statement and published its draft 2013 Finance Bill, which set out details of the carbon price support mechanism, which comes in to force on 1 April, and plans for the reform of the Carbon Reduction Commitment (CRC) programme.

The draft 2013 Finance Bill outlines a series of measures to simplify and clarify the operation of the Carbon Price Floor (CPF). The CPF is designed to promote investment in low carbon technology by providing support and some certainty to the price of carbon in the United Kingdom's electricity sector, which is already covered by the EU ETS.

Continued ▶

Europe, Middle East and Africa

Among the simplification measures contained in the draft Bill is a new definition of 'small generating stations'. Under the new definition, stand-by generators and combined heat and power (CHP) plants which have generating capacity of less than 2MW are exempt from carbon price support. Under the old rules these stations would have been subject to the tax if an organisation had a number of stations with total generating capacity of more than 2MW. The exclusion of these plants will eliminate an administrative burden which would have affected organisations such as hospitals, universities, schools and factories, without significantly reducing the tax take.

The draft legislation clarifies that carbon price support is due when the fuel arrives on site, even where there is no actual supply to the generator. This will allow firms time to register for carbon price support and comply with their obligations, as well as to make necessary amendments to the contracts under which they operate.

It also confirms that fuel delivered before the carbon price support regime takes effect on 1 April, will not be taxed. There had been widespread concern that coal stocks delivered before this date would be taxed, which could have resulted in a bill of more than £50 million (USD$79.06 million) for power generators, most likely impacting the cost of electricity for consumers.

Days before the draft Finance Bill was published, the Chancellor confirmed in his Autumn Statement that the CRC scheme would be simplified this year. In his 2012 Budget, the Chancellor described the scheme as "cumbersome", and said it would be either abolished or reformed. According to the announcement, the CRC's Performance League Table, which ranks companies' emissions reduction performance over the past year, would be abandoned as part of broader simplification efforts. A full review of the CRC programme, and potentially the removal of the tax element of the scheme, would be undertaken in 2016 "when public finances allow", the Chancellor said.

In other developments, the Autumn Statement confirmed that the borrowing timeline of the Green Investment Bank, which was launched in November, would be delayed until 2016/17. The government had committed to funding the Bank, which provides financing solutions to encourage and accelerate private sector investment in green projects in the United Kingdom, with £3 billion (USD$4.79 billion) for the period to 2015, after which it would have full borrowing powers. The government claims the delay is due to the Office for Budget Responsibility forecasting that national debt will not start falling until 2016/17.

The Chancellor also cancelled a £0.03 (USD$0.05) increase in the country's fuel duty "to help with the cost of living for families". The increase, which was due to take effect on 1 January, was the first planned rise in the duty rate for close to two-and-a-half years, the government said.

What this means for you

Jayne Harrold – Senior Manager, PwC United Kingdom – "The new measures contained in the draft Finance Bill go a long way to simplify the carbon price support rules that have developed over the last two years and clarify points of uncertainty. With just two months to go until the carbon price support comes in, organisations now need to act quickly to put systems in place for compliance. Particularly, the Carbon Price Support will have implications for a large number of organisations who use CHP over 2MW. It's not unusual for manufacturers, hospitals and universities to have CHP stations of this size on site. If such organisations have multiple sites, the cost of Carbon Price Support could be a significant number for their bottom line in terms of energy costs, in an environment of spending squeezes."

Americas

Canada

Canada: Quebec launches carbon market and approves link with California

Canadian province, Quebec, launched its cap-and-trade carbon market on 1 January.

The carbon market covers emitters in the electricity and industrial sectors which, according to Point Carbon, together account for 27% of the province's emissions. From 2015, the market is expected to broaden to include sectors such as transportation and buildings, which could see the portion of total emissions covered increase to 85%.

The cap-and-trade market is now in a two year phase-in period, which commenced on 1 January. This will be followed by compliance periods of three years. According to Point Carbon, 75 facilities are initially required to participate in the market.

Most facilities will receive free allowances for 2013. One allowance represents a facility's right to emit one tonne of carbon dioxide in the compliance year.

In addition to free carbon allowances and those purchased at auction, facilities can acquire a limited number of offsets from domestic emissions reduction projects. At the time of writing, eligible emissions reduction projects included the destruction or capture of methane at manure storage facilities and small landfills, and destruction of ozone depleting substances (ODS) from appliances foams.

In December last year, the province adopted new regulations that would "harmonise and integrate" Quebec's cap-and-trade system with those of California, and other potential partners. A link with California's carbon market is expected to be finalised once the Governor of California approves the regulations early this year, as is required by state law. The first joint emissions allowance auction is expected to take place in August.

According to Point Carbon, a link between the markets of Quebec and California – both of which are members of the Western Climate Initiative – would give rise to the second largest carbon market in the world.

Quebec's cap-and-trade market is a critical element of the government's commitment to reduce its emissions by 20% by 2020 below 1990 levels.

What this means for you

Janice Noronha – Director, PwC Canada – "With the introduction of the cap-and-trade system, Quebec companies will have greater flexibility in how they meet their reduction obligations. Greenhouse gas emissions will now become an important factor in making business decisions. Companies will not only need to assess the impacts on the cost of doing business but also the opportunities for efficiency, innovation and new growth markets. Based on these assessments, companies will need to develop effective carbon market strategies with clear plans to create value through emission trading."

What this means for you

Vincent Guimont-Hebert – Senior Associate, PwC Canada – "From an investment point of view, it's fundamental for participating companies to analyse their greenhouse gas reduction options with an economical perspective. Therefore, a sound carbon market strategy should be informed by the identification and prioritisation of emissions reduction projects, in terms of actualised costs to reduce emissions. In free carbon market conditions, such prioritisation will support the decision makers in positioning their companies (as buyer, seller or both, or even to step aside) in accordance with carbon price fluctuations."

Americas

Canada proposes new fuel-efficiency standards

Late last year, Canada's Environment Minister announced the government's plans to introduce new fuel-efficiency standards in an effort to further reduce greenhouse gas emissions from cars and light trucks, and help drivers to reduce their fuel costs. The proposed 'Regulations Amending the Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations' are expected to be finalised this year.

The new standards, which the government says will match the strict fuel-efficiency standards finalised by the United States in the middle of last year, would apply to vehicles of Model Years 2017 to 2025. The Environment Minister said that as a result of the new regulations, cars and light trucks would consume half the fuel, and emit half the greenhouse gas emissions, of equivalent 2008 model vehicles.

According to the Globe and Mail newspaper, officials estimate that vehicle prices could increase by CAD$700 (USD$710) and CAD$1,800 (USD$1,825) by 2021 and 2025 respectively, following the introduction of the new standards. However, annual savings in fuel costs are expected to amount to approximated CAD$900 (USD$912).

Earlier last year the government unveiled its long-awaited regulations to reduce emissions from trucks and buses by 23% by 2018, compared to 2010 models. These regulations will first apply to Model Year 2014, and cover full-size pickups, heavy trucks and buses, as well as cement, garbage and dump trucks.

Canada's new fuel-efficiency regulations are part of the country's sector-by-sector approach to cutting emissions. Canada aims to reduce greenhouse gas emissions by 17 % from 2005 levels by 2020.

Chile

New environmental law enforcement institution and environmental court open in Chile

The Superintendency of the Environment and the Environmental Courts, considered to be the two most important institutions in environmental protection in Chile, officially began operation on 28 December.

The Superintendency is responsible for environmental law enforcement, and the Environmental Court hears claims against resolutions from the Superintendency of Environment and demands for compensation due to environmental damage. Both individuals and institutions are legally able to bring a claim before the Environmental Court on matters concerning the violation of environmental laws and regulations.

In the event that an organisation is found to be in violation of the environmental law, it could face penalties such as forced closure, revoked environmental licenses or fines of up to USD$10 million. Such penalties could be avoided or reduced upon the presentation and approval of a Compliance Program.

Companies regulated by the Superintendency that wish to develop or modify industrial projects are expected to be most impacted by this reform.

What this means for you

Mathieu Vallart – Partner, PwC Chile – "Under the new regulations, the potential cost for environmental legal non-compliance is very high, urging companies to evaluate their compliance with the law and develop corrective action plans. Environmental compliance is key for sustainable development in Chile, and should be properly evaluated at any stage of business development."

Americas

United States

USA: 'Fiscal cliff' legislation extends production tax credit and other clean energy provisions

To address the "fiscal cliff" combination of expiring tax provisions and automatic spending cuts, Congress at the beginning of the year passed the American Taxpayer Relief Act of 2012 (ATRA), which also extends certain expired and expiring individual and business tax provisions through 2013. Several significant renewable and alternative energy provisions are included in ATRA.

The most prominent renewable energy provision is the extension of the production tax credit (PTC) for wind energy by one year to 31 December this year. Equally significant is the conversion of the 2013 deadline from a "placed in service" deadline to a "begin construction" deadline for all renewable energy facilities under the PTC. These include not only wind facilities but also biomass, geothermal, municipal solid waste, landfill gas, marine and kinetic energy, and certain hydropower facilities. The bill also clarifies that commonly recycled paper is excluded from qualifying as biomass for the PTC.

Additionally, ATRA extends taxpayers' ability to elect a 30% investment tax credit (ITC) in lieu of the PTC for facilities that meet the 2013 begin construction deadline.

The bill extends and amends through December 31, 2013, several additional alternative and renewable energy provisions, including the following:

- "Second generation" (formerly cellulosic) biofuels producer credit, while adding algae-based fuel to the list of fuel types eligible for this credit;
- "Second generation" (formerly cellulosic) biofuels bonus depreciation, while adding and adds algae-based fuel to the list of fuel types eligible for this depreciation treatment;
- Incentives for biodiesel and renewable diesel;
- Incentives for alternative fuels and alternative fuel mixtures, although credits for fuel sold or used after 31 December 2011 will not be refundable;
- Credits for alternative fuel vehicle refueling property;
- Credit for the manufacture of energy efficient clothes washers, dishwashers, and refrigerators;
- Indian country coal PTC; and
- Credit for construction of new energy-efficient homes with an updated construction standard.

Finally, ATRA extends, through to 31 December this year, the 50% bonus depreciation rules that were in effect for 2012. Most renewable energy property is eligible for this bonus depreciation treatment.

What this means for you

Matt Haskins – Principal, PwC United States – "While the PTC extension covers only 2013, the addition of "begin construction" language may provide taxpayers a longer window in which to qualify for and claim the credit for both wind and other renewable energy projects. We anticipate that this provision will spur development activity similar to that seen at the end of 2011 under the Treasury 1603 grant program. The extension of the ability to elect into the ITC for PTC property is also important because this election has been a key structuring option for renewable energy projects since it was first enacted in 2009, and the extension of 50% bonus deprecation is a welcome development as it is frequently an important factor in overall returns from renewable energy projects."

Americas

USA: California's cap-and-trade market launches

California's cap-and-trade market officially launched on 1 January. On the first day of trading, the price of California Carbon Allowances (CCAs) reached USD$16.35 per tonne of carbon dioxide, Point Carbon reported.

California hosted its first auction of emissions allowances in November, when all 23.1 million allowances available for sale were purchased for a settlement price of USD$10.09, just 9 cents above the auction "floor" price set by California's Air Resources Board (ARB). According to the ARB website, bids ranged from USD$10 up to USD$91.13 per tonne.

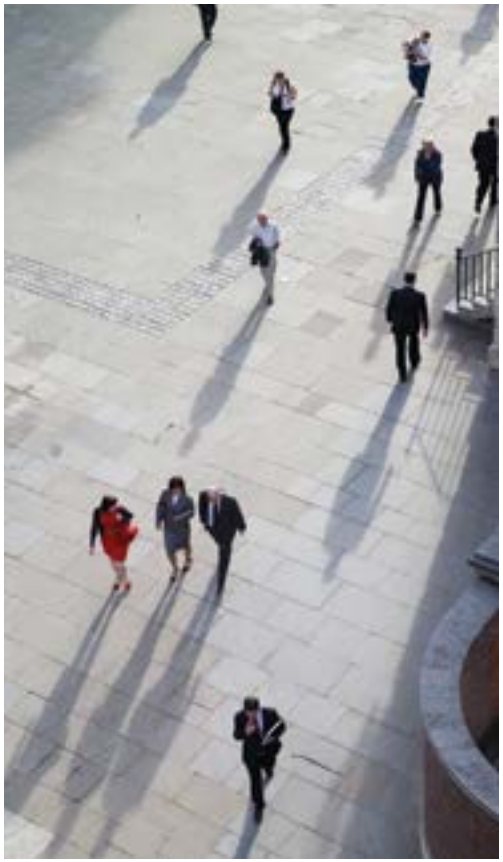
California's cap-and-trade programme covers around 350 companies, representing over 600 oil refineries, power plants and other industrial installations. Under the system, companies will be issued a certain amount of free allowances each year. In the first year of trading, these free allowances will cover, 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 carbon offsets or additional permits through auctions or trade. Where a company is able to cut emissions by more than 10%, it can sell its excess allowances in the market. The number of permits provided free to companies will drop each year.

Participant companies can use carbon offsets from approved projects to meet up to 8% of its yearly compliance obligations. At the time of writing, four categories of projects had been approved by the ARB, which relate to forestry, urban forestry, agricultural methane and destruction of ozone depleting substances. It was recently announced that the eligibility of projects to generate carbon credits would be assessed by firms, Climate Action Reserve (CAR) and American Carbon Registry (ACR). If accepted by these firms, the projects would proceed to state verifiers for approval. It is expected that the number of approved project types will increase this year, according to Point Carbon.

In an effort to protect consumers from rising electricity costs, the California Public Utilities Commission late last year approved a plan that would see the state's three largest utilities return 85% of revenues raised from the sale of carbon allowances back to ratepayers through to 2020. According to Point Carbon, under the plan, up to USD$22.6 billion in revenues could be paid out to consumers through rate reductions and semi-annual climate dividends.

The ARB has amended cap-and-trade regulations to incorporate new details about linking with scheme with the carbon market of Canadian province, Quebec. Quebec's government approved regulations in December that would link the schemes, which are now waiting the final approval of California's governor.

California's carbon market is designed to help achieve the state's commitment to reduce greenhouse gas emissions to 1990 levels by 2020.



Back to map view | Read next article

Americas

USA: EPA finalises standards on soot pollution

Late last year the Environmental Protection Agency (EPA) finalised new standards on harmful fine particle 'soot' pollution. Known as PM2.5, this fine particulate matter of less than 2.5 micrometers in diameter, can cause respiratory issues and other health problems. According to an EPA press release, PM2.5 pollution has been linked with heart attacks, strokes, acute bronchitis, aggravated asthma and premature death.

The new standards reduce the limit for average yearly soot emissions to 12 micrograms per cubic meter of air, down from an existing limit of 15 micrograms per cubic meter which was set in 1997. The EPA was under a court order to finalise the rules "based on best available science", according to an EPA press release.

According to EPA estimates, the cost of implementing the new standards will be between USD$53 million and USD$350 million. By 2030, reductions in soot pollution from diesel vehicles and equipment alone, could give rise to savings of between USD$4 billion and USD$9 billion in annual healthcare costs, and prevent as many as 40,000 premature deaths.

In a separate development, a new study published in January in the 'Journal of Geophysical Research: Atmospheres', shows that soot pollution is not only a health hazard, but is also the second largest human contributor to climate change, after carbon dioxide. The study, which was four-years in the making, shows that short-lived pollutions, such as soot, have nearly twice the impact on the environment as had been estimated in 2007.

The EPA also recently finalised its standards to curb emissions from industrial boilers and large incinerators. The standards, which were unveiled in 2011, have been modified to cover only the country's largest polluters and allow more time for impacted firms to comply. According to an EPA press release "99% of the approximately 1.5 million boilers in the U.S. are not covered or can meet the new standards by conducting periodic maintenance or regular tune-ups".

The EPA is expected to unveil new standards for power plants and refineries this year, after decisions on the rules were delayed last year.

Soon after the standards on soot pollution and industrial boilers and large incinerators were finalised, the EPA's Administrator Lisa Jackson, stepped down from her role.

Asia-Pacific

Australia

Australia's Clean Energy Finance Corporation appoints CEO as Renewable Energy Target review published

Late last year, the Board of Australia's Clean Energy Finance Corporation (CEFC) announced the appointment of its inaugural CEO.

The CEFC is an AUD$10 billion (USD$10.5 billion) fund aimed at driving private sector capital towards technologies and projects dedicated to energy efficiency, renewable energy and low emissions. The CEFC, which was announced in July 2011, is considered an integral part of the Australian government's Clean Energy Future Plan. The appointment of the CEFC's CEO represents a significant step towards operationalising a key part of the government's Clean Energy Future package which also includes a carbon price which took effect on 1 July last year, the Renewable Energy Target and the Australian Renewable Energy Agency.

The CEFC will commence investing funds from 1 July this year. Investment decisions of the CEFC will be commercial and made independently of the government, and the organisation is expected to operate with minimal budgetary assistance.

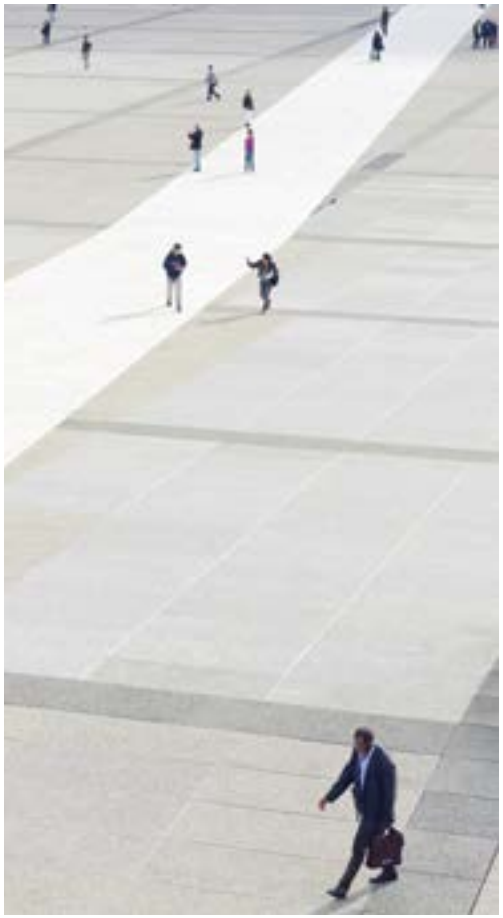
The inaugural CEO and Board bring to the CEFC a wealth of experience and expertise in the banking, finance, energy and low-carbon technology sectors.

Also late last year, the Climate Change Authority released its final report which reviewed the government's Renewable Energy Target – another key part of Australia's Clean Energy Future Plan – following a stakeholder consultation two months earlier. The Climate Change Authority is an independent advisory body to the Australian government on climate change.

The Renewable Energy Target is a government policy designed to promote deployment of renewable energy by way of financial incentives, and increase the share of renewables in Australia's energy mix to 20% by 2020. The Renewable Energy Target policy was first introduced in 2001 and the target itself was increased to 20% by the current government in 2009.

Despite facing pressure from the energy sector, the Climate Change Authority's report recommends that the 20% target, and other key elements of the policy, be retained. Among the recommendations set out by the Climate Change Authority is that the policy be reviewed every four years, rather than the current two years, to promote investor certainty.

The government is expected to respond to the report early this year, and no later than six months from its date of publishing.



Back to map view | Read next article

Asia-Pacific

China

China's new leadership prioritises green growth

The 18th National Congress of the Communist Party of China (CPC) unveiled 'green growth' as one of China's core themes for the country's future development. The fifth generation of leaders of the CPC, who will determine China's future direction for the next 10 years, were announced at the 18th National Congress in Beijing in November last year.

At the Congress, the CPC sent the international community a clear and consistent message that the new leadership remains committed to "deepening reform and opening up". In the process of working towards a prosperous and environmentally-friendly China, the CPC said it will adopt a "positive, open-strategy" to seek win-win solutions between all parties.

The themes of restructuring the economy, boosting domestic demand and spurring green growth dominated the 64 page keynote report delivered by President Hu Jintao at the 18th Party Congress. The keynote report is said to reflect the new leadership's consensus, representing "the crystallisation of the wisdom of the whole Party". The President vowed to "give high priority to making ecological progress, and incorporate it into all aspects and the whole process of advancing economic, political, cultural and social progress". It represents the first time that Chinese leaders have called for the "building of a beautiful China".

The goal to establish a green and low-carbon development perspective was adopted during the 5th plenary session of the 17th Party Congress.

The State Council also recently ordered major industrial projects to undergo "social risk assessments" through public opinion hearings before commencing. Recent riots and protests in Sichuan, Jiangsu and Zhejiang highlight the increasing public awareness of environmental issues.

It is expected that green buildings, green construction, green mining, green consumption, green government procurement and green certification of products will all become mainstream in China in the near future. According to the National Development and Reform Commission (NDRC), China plans to invest 2 trillion yuan (USD$321 billion) on energy saving and low-carbon development projects during the 12th Five-Year Plan.

It is expected that the themes of keynote report of 18th Party Congress will be translated into more detailed action plans when the new government forms at the National People's Congress next month.

What this means for you

Allan Zhang – Director, PwC China – "The Chinese government is becoming serious about tackling the environmental issues of carbon emissions, energy efficiency, waste management and air quality control, areas it has neglected for economic growth for decades. This long-awaited change of focus hopefully will spur growth of the green sector and provide many new business opportunities for foreign and domestic enterprises."

Asia-Pacific

China: Nationwide emissions trading scheme may form part of 13th five-year plan

According to Xinhua News Agency, China is planning to extend its pilot emissions trading schemes nationwide as part of its 13th Five-Year Plan, which covers the period 2016 to 2020. Speaking at a side event at the UN climate change summit in Doha late last year, a member of the Chinese delegation said that "the pilots are part of the key endeavours in China's 12th Five-Year Plan (2011-15) and we hope to roll out the carbon market to other regions and eventually across the nation in the 13th Five-Year Plan".

Five designated cities and two provinces across China will trial the implementation of carbon trading schemes between now and 2015. According to reports, each city and province will be responsible for setting carbon emissions caps and developing administration bodies, trading platforms and registries and setting restrictions on the use of offsets in the schemes. In June last year, China's NDRC released *"The Tentative Measures for the Administration of Voluntary Greenhouse Gasses Emissions Reduction Trading Gases"*, which set out rules governing the country's carbon offset market, which largely mirror the framework of the UN Clean Development Mechanism (CDM) programme.

At the Doha summit, an official from the NDRC confirmed progress in China's pilot trading schemes, saying programmes have launched in the cities of Beijing, Tianjin, Shanghai, Chongqing and Shenzhen, and Guangdong and Hubei provinces. All have submitted proposals for implementation, and Beijing, Shanghai, Tianjin and Guangdong will likely start their implementation shortly, the official told Xinhua News Agency.

In a separate development, it was revealed late last year that Shanghai's pilot emissions trading scheme will include aviation emissions. Six local airlines will be required to surrender permits for each tonne of carbon dioxide emitted on domestic routes, according to a document published by the Shanghai Municipal Development and Reform Commission, and reported on by Point Carbon.

The seven pilot trading schemes, and a planned future nationwide scheme, are designed to help the country achieve goals set out in its 12th Five-Year Plan, which aim to reduce total carbon intensity by 17% and energy consumption by 16% by 2015, compared to 2010 levels.

China unveils plan to reduce air pollution

In December last year, China's Ministry of Environmental Protection unveiled its plan to curb the country's increasing pollution levels. The plan, which was approved by the State Council in September, aims to cut the intensity of PM2.5 across 13 of the country's most economically active regions. PM2.5 is fine particulate matter of less than 2.5 micrometers in diameter, which can cause respiratory issues and other health problems.

The pollution reduction plan sets out measures to reduce the intensity of PM2.5 particles in designated areas by 5% by 2015, compared with 2010 levels. A 6% target has been set for the Pearl River Delta, the Yangtze River Delta (including Shanghai) and the Beijing-Tianjin-Hebei regions.

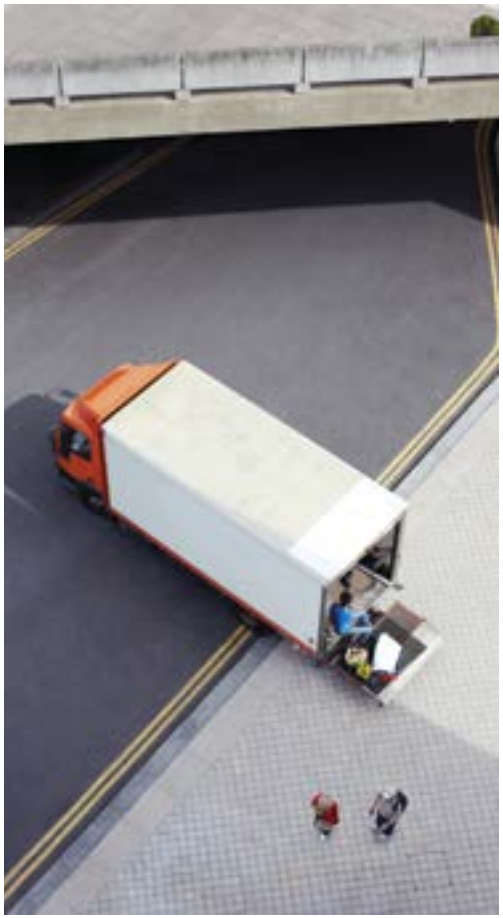
Under the plan, measures will also be taken to reduce levels of nitrogen dioxide by 7%, sulfur dioxide by 10% and PM10 particles by 10% over the same period. According to the Shanghai Daily, the treatment of primary and secondary pollution related to PM2.5, dust, smoke, volatile organic compounds, acid rain pollution and ozone are also considered in the plan.

According to the China Daily, this is China's first comprehensive plan to reduce overall air pollution. The regions targeted by the plan represent 117 cities, 71% of the economy, 48% of the population and 14% of China's geographic area.

A month after the pollution reduction plan was unveiled, between 12 and 16 January, many parts of northern China experienced the country's most polluted air quality according to the Air Quality Index, where PM2.5 data in Beijing reached 500. The government has vowed to take radical measures to improve the situation and more investment is expected in the coming years.

The pollution reduction plan follows an announcement earlier last year that new Environmental Air Quality Standards for PM2.5 and ozone density will come into force by 2016.

Asia-Pacific



Japan

Japan formalises agreement with Mongolia to establish Joint Crediting Mechanism

The Environment Ministers of Japan and Mongolia signed an agreement during the UN climate change summit in Doha late last year to establish a Joint Crediting Mechanism (JCM). A separate document which formalises a "Low Carbon Development Partnership" between the two countries, and sets out preliminary rules for the joint carbon offset market, was signed by the Japanese and Mongolian governments in January.

The bilateral agreement is designed to help Japan improve its industries' competitiveness in the area of energy efficiency and low carbon technologies, and at the same time, help partnering developing countries to reduce their emissions. Japan has previously announced plans to launch similar joint markets with Indonesia and Vietnam and, according to Point Carbon, is also pursuing agreements with Thailand and India.

According to the "Low Carbon Development Partnership" agreement, Japan and Mongolia mutually recognise that verified emissions reductions generated through JCM projects can be used towards both countries' internationally pledged greenhouse gas emissions reduction efforts. The countries also agree not to use the JCM projects "for the purpose of any other international climate mitigation mechanisms to avoid double counting".

A joint committee consisting of representatives from both Japan and Mongolia will be established to operate the JCM. The committee will be responsible for setting the rules and regulations of the programme, including the development of methodologies to quantify emissions reduction or removal, requirements for accreditation of third parties and other matters relating to the administration and implementation of the JCM.

The JCM will commence as a non-tradable credit type mechanism, with a view to it moving towards a tradable system "at the earliest possible timing", based on joint consultation between Japan and Mongolia. Under the agreement, the Low Carbon Development Partnership covers the period until a new international framework takes effect under the UN process.

Historically, Japan has been a big buyer of carbon offsets to meet its carbon reduction obligations under the first commitment period of the Kyoto Protocol, which expired at the end of last year. As Japan, along with a number of other developed countries, has not signed up to a second commitment period under the Kyoto Protocol, it can no longer use offsets from UN-backed Clean Development Mechanism (CDM) projects as part of its efforts to achieve the country's carbon emissions reduction pledges.

Asia-Pacific

Vietnam

Vietnam confirms plans to launch domestic emissions trading scheme

Vietnam's Prime Minister in late November approved plans for a domestic carbon market. Plans for the emissions trading scheme formed part of the country's formal submission at the UN climate change summit in Doha.

The emissions trading scheme will play a critical role in achieving Vietnam's Green Growth strategy which was approved by the Prime Minister just a few months prior. The government's Green Growth strategy sets out a series of targets and measures aimed to reduce domestic greenhouse gas emissions, and transition Vietnam towards a low carbon economy by 2020 and beyond.

Among the goals set out in the strategy, are reductions in greenhouse gas emissions by between 8% and 10% compared to 2010 levels by 2020, and energy consumption by 1% to 1.5% each year, according to Viet Nam News. Emissions from the energy and transport sectors, and agriculture sector alone, are to decrease by 8% and 20% respectively, by 2020 compared to 2005 levels.

VietNam Net news source reported that Vietnam's carbon market will cover 6 greenhouse gases, which include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfuorocarbons and sulfur hexafluoride. According to Viet Nam News, a 5% drop in methane emissions will be achieved through the application of industrial wastewater treatment and landfill site absorption processes, and reforestation will play a role in reducing carbon dioxide emissions.

Viet Nam News reported that Vietnam plans to join the international carbon market by 2020.

Global

PwC: Our analysis of COP18 and where to from here

While COP18 was no landmark event, governments did adopt an extension of the Kyoto Protocol, set milestones in the lead up to a 2015 agreement (the Durban Platform for Enhanced Action which was borne of COP17 in 2011) and achieved some institutional tidying up. In other words, Doha achieved what was expected and kept the process on the rails.

The most significant outcome from Doha was the adoption of the second commitment period of the Kyoto Protocol. Europe, Australia and a handful of others, amounting to less than 15% of global emissions, effectively put their existing national targets under the Kyoto framework. In doing so, they maintain the institutions and mechanisms established by the Protocol through to the end of 2020. Only those developed countries which have taken on targets are eligible to use credits from Clean Development Mechanism (CDM) projects after 2012.

The thorny issue of the use of 'hot air' was also settled by the end of the summit. Russia, the Ukraine and some others, have adopted Kyoto targets that are well above their current emissions. This is because Kyoto's baseline year is 1990 and emissions from industrial activity in these countries collapsed in the 1990s following the breakup of the Soviet Union. It was agreed that these countries can keep their 'sovereign wealth' in a surplus reserve account, so their economic growth is not constrained by emissions targets, but they are not allowed to sell this surplus from the first Kyoto period, thus retaining some integrity in the targets of the second period of the Kyoto Protocol. After the Qatari COP President gavelled through the Kyoto deal, Australia, Japan, Norway, Switzerland and the EU all made formal statements that they would not buy these countries' 'hot air'.

In addition to concluding the Kyoto working group, the Long-term Cooperative Action group was also wrapped up in Doha, which will help to simplify the process going forwards. The Long-term Cooperative Action group was established at COP13 in Bali, tasked with the responsibility of conducting "a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012". Tidying up the institutional arrangements of the UNFCCC will ease the pressure on negotiators as the major issues will at least now be discussed in the same room. It could even facilitate the talks by allowing for clearer trade-offs to be made on some of the major sticking points.

Finance was perhaps the most heated part of the negotiations. Many developing countries called for developed countries to ramp up climate finance from the current USD$10 billion per year, known as 'Fast Start Finance', to USD$100 billion per year in 2020. There was no formal agreement on finance, but countries should submit plans on how they plan to reach the USD$100 billion target. The United Kingdom, Norway and a handful of others made funding commitments. While not sufficient to satisfy vulnerable developing countries, it was enough to avoid a de-railing of the meeting. Next year we can expect developing countries to demand more.

One outcome from Doha which took many by surprise was the agreement to establish a mechanism, or institutional arrangement, to address 'loss and damage' associated with the impacts of climate change in vulnerable developing countries. Some suggest that this raises the threat of liability for extreme weather events and compensation. However, in practical terms such a mechanism could form part of the Green Climate Fund or climate finance more generally, for example, by way of a climate risk insurance facility. For the talks to make progress on this issue, the discussion needs to consider this simply as another form of climate finance.

Continued ▶

Global

The Durban Platform group (ADP), which was established at COP17 in Durban, aims to develop a new legal agreement by 2015 which would bind all countries to more ambitious commitments to climate change mitigation from 2020. This was loosely divided into two sub-groups which discussed the principles of a new 2015 agreement and how to raise ambition in the short and long-term. Equity and historical responsibility dominated the ADP discussions, and by the conclusion of the summit, countries had agreed a very high level timeline for the discussions in the lead up to the COP in 2015.

Looking forward, targets, finance and 'loss and damage' will be high on the agenda at climate negotiations through 2013 and beyond. We expect that governments at the next COP – in Warsaw this November – will propose measures to increase ambition in the short term, i.e. up to 2020, but it is likely that these discussions will remain largely qualitative in 2013.

Developing countries will continue to call for more money to tackle emissions growth and the impacts of climate change, and we can expect to see further forensic level analysis of what funding has been delivered and whether it is additional to existing aid. Developed countries are also expected to present plans in Warsaw on how they will scale up their current funding to USD$100 billion per year by 2020. The Green Climate Fund, newly established in South Korea, will seek to define some of the rules and funding mechanisms for channelling climate finance. In 2013, though, it is likely that donor governments will use existing routes to deliver their financial commitments (i.e. through their own development departments or through the World Bank and similar institutions).

'Loss and damage' could either become mainstreamed into climate finance, along with mitigation and adaptation, or descend into fractious and interminable discussions about liability and compensation. If 'loss and damage' unrealistically raises expectations about increasing financial flows, it is possible that it could heighten mistrust among negotiators if these expectations are not met.

New coalitions of countries could also emerge in 2013, which break down the traditional north-south divide. The EU, a self-proclaimed leader in the talks, may look to forge stronger links with other proactive developing countries such as the Association of Independent Latin American and Caribbean (AILAC) states which includes Chile, Costa Rica, Panama, Colombia, Peru and some others.

What this means for you

Jonathan Grant – Director, PwC United Kingdom – "Neither governments nor business can wait for or rely on a 'clear signal' from a global agreement in 2015. So businesses face a much more challenging future in terms of planning and financing new investments, as well as maintaining continuity of supply chains and existing operations. They will need the tools to manage uncertainty and build resilience to both climate and policy shocks."

Contact us

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

www.pwc.com/globalgreenpolicyinsights

The Design Group 21399 (01/13)