

Climate Regulation

in 17 jurisdictions worldwide

2014

Contributing editor: Per Hemmer



Published by
Getting the Deal Through
in association with:

Arntzen de Besche Advokatfirma AS

Baltic Legal Solutions Lithuania

Bech-Bruun

Blum & Grob Attorneys at Law Ltd

Bowman Gilfillan

Clarus Law Associates

Conlin Bedard LLP

Dentons UKMEA LLP

Fiebinger Polak Leon & Partner Rechtsanwälte GmbH

Herbert Smith Freehills

Latham & Watkins LLP

Rubio Leguia Normand

Selarl Huglo Lepage & Associés Conseil

Simmons & Simmons LLP

Siqueira Castro Advogados

Von Lode Advokat AB



Climate Regulation 2014

Contributing editor
Per Hemmer
Bech-Bruun

Publisher
Gideon Robertson

Business development managers
Alan Lee
George Ingledew
Dan White

Account manager
Megan Friedman

Trainee account managers
Cady Atkinson
Joseph Rush
Dominique Destrée
Emma Chowdhury

Media coordinator
Parween Bains

Administrative coordinator
Sophie Hickey

Trainee research coordinator
Robin Synnot

Marketing manager (subscriptions)
Rachel Nurse
subscriptions@gettingthedealthrough.com

Head of editorial production
Adam Myers

Production coordinator
Lydia Gerges

Senior production editor
Jonathan Cowie

Director
Callum Campbell

Managing director
Richard Davey

Climate Regulation 2014
Published by
Law Business Research Ltd
87 Lancaster Road
London, W11 1QQ, UK
Tel: +44 20 7908 1188
Fax: +44 20 7229 6910
© Law Business Research Ltd 2013

No photocopying: copyright licences do not apply.

First published 2009
Fifth edition

ISSN 2042-4353

The information provided in this publication is general and may not apply in a specific situation. Legal advice should always be sought before taking any legal action based on the information provided. This information is not intended to create, nor does receipt of it constitute, a lawyer-client relationship. The publishers and authors accept no responsibility for any acts or omissions contained herein. Although the information provided is accurate as of October 2013, be advised that this is a developing area.

Printed and distributed by
Encompass Print Solutions
Tel: 0844 2480 112

Law
Business
Research

Introduction and Overview Per Hemmer, Johan Weihe and Rania Kassis <i>Bech-Bruun</i>	3
EU Legislation on Climate Change Adrien Fourmon <i>Selarl Huglo Lepage & Associés Conseil</i>	11
Australia Michael Voros <i>Herbert Smith Freehills</i>	18
Austria Thomas Starlinger and Tamara Karlovsky <i>Fiebinger Polak Leon & Partner Rechtsanwälte GmbH</i>	25
Brazil Adriana Coli Pedreira, Patrícia Macedo Guimarães and Luiza Antonaccio Lessa Rodrigues <i>Siqueira Castro Advogados</i>	32
Canada Paul Conlin and Ben Bedard <i>Conlin Bedard LLP</i>	38
Denmark Per Hemmer, Johan Weihe and Rania Kassis <i>Bech-Bruun</i>	46
Germany Jochen Terpitz and Nuray Karaca <i>Simmons & Simmons LLP</i>	55
India R V Anuradha and Sumiti Yadava <i>Clarus Law Associates</i>	61
Lithuania Dainius Stasiulis and Rasa Narbutaite <i>Baltic Legal Solutions Lithuania</i>	73
Netherlands Viviana Luján Gallegos, Liesbeth Driest and Rutger de Witt Wijnen <i>Simmons & Simmons LLP</i>	79
Norway Hanna Inger Bjurstrøm, Eivind Aarnes Nilsen and Merete Kristensen <i>Arntzen de Besche Advokatfirma AS</i>	86
Peru Brendan Oviedo Doyle <i>Rubio Leguia Normand</i>	95
South Africa Claire Tucker <i>Bowman Gilfillan</i>	100
Sweden Maria Hagberg and Amanda Starfelt <i>Von Lode Advokat AB</i>	107
Switzerland Philippe Wenker, Rahel Reich and Stefan Wehrenberg <i>Blum & Grob Attorneys at Law Ltd</i>	114
United Kingdom Stephen Shergold, Helen Bowdren and Ashley Belcher <i>Dentons UKMEA LLP</i>	122
United States Robert Wyman, Marc Campopiano, Joshua Bledsoe, Buck Endemann, Aron Potash and Stacey VanBelleghem <i>Latham & Watkins LLP</i>	130

United States

Robert Wyman, Marc Campopiano, Joshua Bledsoe, Buck Endemann, Aron Potash and Stacey VanBelleghem

Latham & Watkins LLP

Main climate regulations, policies and authorities

1 International agreements

Do any international agreements or regulations on climate matters apply in your country?

The United States (US) is not currently subject to binding international agreements to reduce greenhouse gas (GHG) emissions. The US ratified the United Nations (UN) Framework Convention on Climate Change on 15 October 1992 and it entered into force on 21 March 1994. The US signed the Kyoto Protocol on 11 December 1998 but has never ratified, accepted or approved it. As such, the US is not required to comply with the Kyoto Protocol. At the November 2012 UN Conference of the Parties on Climate Change in Doha, the US agreed to speedily work toward a universal climate change agreement covering all countries after 2020, to be adopted by 2015.

At the subnational level, California and Québec have agreed to link their GHG emissions trading programmes, effective in California on 1 January 2014.

2 International regulations and national regulatory policies

How are the regulatory policies of your country affected by international regulations on climate matters?

US regulatory policies are affected more by the absence of a comprehensive international regime to control GHG emissions than by current international regulations. In particular, the absence of binding international controls on developing countries experiencing rapid economic growth and associated GHG emissions (eg, China, Brazil, and India) has made the US reluctant to join an international climate regime or commit to nationwide GHG emission reductions for fear of impairing its relative economic competitiveness.

US climate change policies nonetheless have been affected by developments in policy and science at the international level. For example, scientific research by the UN's Intergovernmental Panel on Climate Change (IPCC) concerning the causes and implications of global climate change informed the US Environmental Protection Agency's (EPA's) Endangerment Finding, discussed in question 3.

3 Main national regulatory policies

Outline recent government policy on climate matters.

Federal developments

Legislative efforts to enact climate legislation narrowly failed in 2010. The 2010 mid-term US Congressional elections, which removed cap-and-trade supporters from office, suspended any serious consideration of such legislation. In the absence of federal legislation on climate change, EPA is regulating GHG emissions through its pre-existing authority under the federal Clean Air Act (CAA). Pursuant to the seminal decision in *Massachusetts v EPA*, 549 US 497 (2007), in which the US Supreme Court cited the IPCC and held that GHGs met the CAA's definition of an 'air pollutant' and

thus can be regulated, EPA published its 'Endangerment Finding' on 15 December 2009. In the Endangerment Finding, EPA concluded that the six primary GHGs recognised by the UN reasonably may be anticipated to endanger public health and welfare. On the same day, EPA issued findings defining the applicable air pollutant as the same six GHGs, in aggregate, and found that this new air pollutant, when emitted from new motor vehicles and new motor vehicle engines, contributes to pollution that endangers public health and welfare.

Obama's Climate Action Plan

The continuing absence of federal climate change legislation prompted President Obama to issue a Climate Action Plan (CAP) in June 2013. The Plan is not a proxy for legislation, and has no legal effect, but it presents the president's strategy for cutting GHGs, preparing the US for the effects of climate change, and spurring international efforts to address global climate change. In order to reduce GHG emissions, the CAP aims to further deploy clean energy, modernise the transportation sector, cut energy waste, reduce GHGs other than CO₂, and cut GHGs from power plants.

Transportation sector

On 7 May 2010, EPA published the 'Tailpipe Rule' which imposed GHG tailpipe (ie, exhaust) emission standards for certain mobile sources under section 202(a) of the CAA. EPA's GHG emissions standards for model year 2012-2016 light-duty vehicles took effect on 2 January 2011, and have been extended to model year 2017-2025 passenger vehicles. These standards generally require carmakers to produce cars with improved fuel economy, with compliance measured on a fleet-wide basis.

Generation sector

On 3 June 2010, EPA published the 'Tailoring Rule,' which limits the applicability of Prevention of Significant Deterioration (PSD) permitting for GHGs to only the highest-emitting sources. In the absence of the Tailoring Rule, the PSD programme's existing thresholds would have applied. See question 10 for a discussion of the permitting programme.

As required by the CAA, most states have taken steps to modify their applicable air regulations and CAA State Implementation Plans (SIPs) to conform to EPA's Tailoring Rule and guidance. However, Texas notably has chosen not to issue GHG permits. Accordingly, on 3 May 2011, the EPA promulgated a Federal Implementation Plan (FIP) for the state. On 26 July 2013, the DC Circuit Court upheld the EPA's authority to promulgate a FIP for Texas. It did so on the grounds that Texas had failed to allege a concrete injury resulting from the EPA's action, and because the EPA had followed the tenets of 'cooperative federalism' established in the CAA by giving the state sufficient opportunity, which Texas rejected, to modify its SIP to incorporate new GHG permitting responsibilities.

In conjunction with the CAP, President Obama issued a Memorandum to EPA, which directs EPA to re-propose CO₂

emissions New Source Performance Standards (NSPS) for new power plants under CAA Section 111(b). The EPA previously had proposed a rule to establish an NSPS for GHG emissions from new power plants in April of 2012, but the EPA failed to finalise it. President Obama's Memorandum also directs the EPA to establish GHG guidelines for existing power plants. In particular, the EPA is instructed to propose CO₂ guidelines for existing power plants under section 111(d) of the CAA by 1 June 2014, finalise these guidelines no later than 1 June 2015, and require states to submit their responsive SIPs by 30 June 2016. President Obama's direction to the EPA regarding CAA section 111(d) is significant because, prior to this announcement, officials consistently stated that the administration had no plans to regulate CO₂ emissions of existing power plants.

Biomass

On 20 July 2011, the EPA published its final rule deferring GHG permitting requirements for CO₂ emissions from biomass-fired and other biogenic sources until 21 July 2014. Environmental groups challenged the deferral. In September 2011, EPA released an 'Accounting Framework for Biogenic CO₂ Emissions from Stationary Sources,' which analyses accounting methodologies and suggests an implementation framework for biogenic CO₂ emitted from stationary sources. On 12 July 2013, in *Center for Biological Diversity, et al v EPA, et al*, the DC Circuit court vacated the EPA's three-year GHG permit deferral for new plants that combust biomass, finding that the EPA had acted arbitrarily and capriciously when it adopted a blanket deferral for biomass emissions. As a result, biomass energy companies are urging the EPA to craft a rule-making that would permanently exempt the facilities from CAA GHG permitting requirements.

Other

In 2012, the EPA promulgated NSPS and National Emission Standards for Hazardous Air Pollutants (NESHAP) that regulate certain air emissions from hydraulic fracturing operations and certain equipment used in the upstream and midstream sectors of the oil and gas industry. The 2012 rule required the use of certain control technology in accordance with certain timetables, including the use of 'green completions' on all wells hydraulically fractured after 1 January 2015. While not directly regulating GHGs, the EPA expects the rule to result in a major reduction in methane emissions. On 2 August 2013, EPA updated its 2012 performance standards to ease the emissions control adoption requirements for certain storage vessels covered by the 2012 rule. The revision does not represent a major change to the regulations, which nevertheless have been met with pending legal challenges from both industry and environmental groups.

On 30 August 2012, President Obama signed an Executive Order (EO) titled 'Accelerating Investment in Industrial Energy Efficiency,' which set a goal of creating 40 gigawatts of new industrial combined heat and power (CHP) by the end of 2020. According to a joint report from the US Department of Energy (DOE) and the PA in August 2012, meeting the goal would increase national CHP capacity by 50 per cent and save 1 quadrillion Btu of energy, or 1 per cent of total energy used in the US. CHP takes thermal energy produced during industrial processes that would otherwise go to waste and uses it in applications like making steam or providing hot water or heating, reducing the need to purchase electricity for those uses. In order to achieve the new goal, President Obama instructed several federal agencies and councils to coordinate with the states, industry, utilities, and other relevant stakeholders to expand CHP usage and reduce industrial energy consumption and emissions.

Regional developments

Several states have adopted or are pursuing regional cap-and-trade programmes, but other states have withdrawn from these programmes. The Regional Greenhouse Gas Initiative (RGGI),

discussed in question 12, currently includes Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island and Vermont. In February 2013, RGGI reduced the CO₂ cap by 45 per cent, which caused a concomitant increase in allowance prices. The Western Climate Initiative (WCI) is a regional cap-and-trade programme designed to link with California's programme (discussed below). The WCI currently includes California and the Canadian provinces British Columbia, Manitoba, Ontario, and Quebec. The Midwest GHG Reduction Accord is now dormant.

State developments

In general, efforts by the states to regulate GHG emissions persist but have been slowed due to poor economic conditions. The most noteworthy GHG regulation at the state level is California's Global Warming Solutions Act of 2006, commonly known as Assembly Bill (AB) 32, which mandates a reduction in GHG emissions to 1990 levels by 2020. The California Air Resources Board (ARB) is charged with implementing AB 32 and approved a Climate Change Scoping Plan (Scoping Plan) in December 2008. The Scoping Plan is a roadmap of emission-reduction measures that ARB will promulgate per AB 32. Due to judicial challenges, ARB reapproved a modified Scoping Plan on August 24, 2011. ARB is undertaking a 2013 Update to the Scoping Plan to evaluate its progress towards meeting 2020 goals and to begin developing plans for post-2020 emissions reductions. Various emission-reduction measures have been judicially challenged, but to date California either has prevailed in court or been permitted to continue implementing the measures while correcting any legal deficiencies.

There has been comparatively less activity in other states. Oregon has established CO₂ emissions performance standards for new electric generating facilities that vary by fuel type and load service; facilities also can comply by obtaining CO₂ emission offsets. Washington requires: all new electric generating resources to meet a GHG emission performance standard; and new fossil-fueled thermal generating facilities and existing facilities proposing to increase their capacity by 15 per cent to mitigate 20 per cent of total CO₂ emissions. Montana, via House Bill 25 passed in 2007, prohibits approval of new coal plants that do not sequester at least 50 per cent of the plant's CO₂ emissions.

4 Main national legislation

Identify the main national laws and regulations on climate matters.

Currently, there is no main national climate legislation in the US. See question 3 for ongoing regulatory activity being conducted under the CAA. See question 19 for a discussion of renewable energy policies and incentive programmes.

5 National regulatory authorities

Identify the national regulatory authorities responsible for climate regulation and its implementation and administration. Outline their areas of competence.

The EPA is the primary national regulatory authority responsible for climate regulation and its implementation and administration. EPA's authority includes promulgation and enforcement of CAA standards for GHG emissions reporting and emissions limits for both mobile and stationary sources, adaptation to a changing climate, and protection of drinking water aquifers under the federal Safe Drinking Water Act *vis-à-vis* carbon capture and sequestration (CCS) underground injection technologies.

The National Environmental Policy Act (NEPA) requires federal agencies to consider potential environmental impacts associated with major federal actions that may significantly affect the environment. The Council on Environmental Quality (CEQ) is charged with ensuring federal agencies comply with NEPA. On 18 February

2010, CEQ issued *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions* to help federal agencies address climate change impacts under NEPA. Although the comment period closed in May 2010, CEQ has not finalised the guidance. Nonetheless, certain federal agencies have developed internal guidance to facilitate analysis of climate change under NEPA (eg, Department of the Interior, Fish & Wildlife Service, Federal Aviation Administration, and the Army Corps of Engineers). In practice, most federal agencies now consider climate change during the NEPA process.

In May 2013, the US Government Interagency Working Group increased the social cost of carbon (SCC) from US\$22 to US\$33. The SCC, which federal agencies are expected to utilise when evaluating the prudence of certain actions or approvals, sets the incremental cost to society of each ton of CO₂ emitted. This SCC has been widely attacked by industry as having been increased without appropriate public process or analysis.

General national climate matters

6 National emissions and limits

What are the main sources of emissions of greenhouse gases (or other regulated emissions) in your country and the quantities of emissions from those sources? Describe any limitation or reduction obligations. Do they apply to private parties in your country?

According to the EPA's 2013 US GHG Inventory Report, which covers the period of 1990 through 2011, total US GHG emissions were 6,702 million metric tons of CO₂ equivalent in 2011. This represented a 1.6 per cent reduction over 2010 levels and a 6.9 per cent reduction over 2005 levels. The two largest sources of emissions continue to be electricity generation and transportation, and the EPA attributed the emissions decrease to reduced emissions from these sources, among other factors.

Due to recent mandatory GHG reporting rules, which went into effect for many industries in 2011 and additional industries in 2012, future inventory reports should include more robust data. The GHG reporting programme imposed GHG monitoring and reporting requirements for any 'facility' with operations that fall within one or more 'source categories,' which EPA estimates covered about 85-90 per cent of GHG emissions in the US. In 2013, EPA released Greenhouse Gas Reporting Program data for reporting year 2011, the second year of reporting. Approximately 8,000 facilities reported 3.3 billion tons of CO₂e direct emissions. Twelve additional source categories, including petroleum and natural gas systems and coal mines, reported for the first time in 2013, bringing the total source categories to 41. For certain source categories, the reporting rule triggered regardless of the facility's GHG emissions levels. For other source categories, mandatory reporting was triggered only when the facility's GHG emissions for those operations exceeded 25,000 tons per year (tpy) carbon dioxide equivalent (CO₂e). The GHG reporting programme identified for the first time individual sources operating in the US that fall within these categories and provide a regulatory system for year-to-year tracking of their GHG emissions. Much of the information from the GHG reporting programme is available to the public.

The EPA is working on regulations to limit CO₂ emissions from new and existing power plants as discussed in questions 3 and 10, which also describe GHG-related regulations and permitting requirements.

7 National emission projects

Describe any major emission reduction projects implemented or to be implemented in your country. Describe any similar projects in other countries involving the participation of government authorities or private parties from your country.

See questions 3 and 10 for a discussion of GHG-related regulations and permitting requirements, including EPA's anticipated rulemakings to limit CO₂ emissions from new and existing power plants, and question 19 for a discussion of renewable energy policies and incentive programmes.

Domestic climate sector

8 Domestic climate sector

Describe the main commercial aspects of the climate sector in your country, including any related government policies.

The commercial climate business environment in the US persists but continues to be sluggish due to general economic conditions and the failure of Congress to adopt cap-and-trade legislation. Nonetheless, federal, state and, to a lesser extent, local subsidies continue to provide significant drivers of commercial climate investment. Federal and state environmental review statutes also drive GHG mitigation investments in the context of individual projects that trigger such review.

The DOE's Loan Guaranty Program (LGP) has backed private investment in climate technologies on a commercial scale, as well as new and improving technologies. In 2010 and 2011, 41 new US solar manufacturing facilities began operations across America, motivated in part to support solar projects with LGP backing. These facilities have fostered new steel manufacturing facilities, glass producers, and tool dye manufacturing facilities for solar electronics and tracking equipment, helping the US solar market grow by nearly 110 per cent in 2011. While there have been no loans closed under the LGP since late 2011, in July 2013, the Energy Department announced that up to US\$8 billion in loan guarantees will be available for innovative and advanced fossil energy projects and facilities that substantially reduce greenhouse gases and other air pollution. The LGP continues to be under increased congressional scrutiny and subject to volatility.

Additionally, since 2009, several technologies have received American Recovery and Reinvestment Act of 2009 (ARRA) funding. For example, under ARRA, US\$855 million was distributed to develop the carbon capture and sequestration (CCS) industry, and grid and efficiency technologies also received significant grants of ARRA funding, at US\$706 million and US\$903 million, respectively. ARRA also extended the wind production tax credit (PTC), an important federal subsidy first enacted in 1992, through the end of 2012. The PTC was extended for one additional year in January 2013, with one important change: to be eligible for the PTC, projects must only begin construction, rather than be placed in service, by 31 December 2013. While the PTC has been a major incentive for wind power and has helped to spur independent wind energy power producers, members of the wind industry fear that the continued uncertainty over the fate of the PTC could limit growth and investment in this sector.

The US is the world's leading producer of ethanol, a biofuel usually mixed with gasoline to power motor vehicles. The main drivers of commercial production of biofuels remain federal and state subsidies. Such subsidies include grants, tax credits and exemptions and government procurement contracts that require purchase of biofuelled vehicles. Additionally, under the authority of CAA Section 211(o), EPA has required that 36 billion gallons of biofuel be blended into gasoline by 2022, although EPA has recently lowered annual year targets to account for declining gasoline use.

Many individual states have renewable energy standards that require utilities to purchase a percentage of their electricity from renewable energy sources, which have spurred significant development in US-based wind and solar companies that manufacture power generating equipment for wind, solar, geothermal and biomass projects. See question 19 for a discussion of renewable energy policies and incentive programmes.

General emissions regulation

9 Regulation of emissions

Do any obligations for emission limitation, reduction or removal apply to your country and private parties in your country? If so, describe the main obligations.

See question 3 for more discussion of applicable federal, state and regional GHG regulations. See question 10 for a discussion of related GHG permitting requirements.

10 Emission permits or approvals

Are there any requirements for obtaining emission permits or approvals? If so, describe the main requirements.

At the present time, federal regulatory controls on stationary source emissions of GHGs are implemented primarily through the CAA PSD permit programme. Under the CAA, new or modified sources that have the potential to exceed statutory limits on certain pollutants must first obtain New Source Review (NSR) approval from EPA or, where applicable, the delegated local permitting authority. If a project is located in an area that is 'in attainment' for ambient air quality standards, the project must obtain a PSD permit to satisfy NSR requirements. GHG emissions are regulated by PSD permit because they are considered 'regulated pollutants,' ie, pollutants that EPA has regulated elsewhere under the CAA but for which it has not set national ambient air quality standards (NAAQS). A PSD permit requires major sources to install Best Available Control Technology (BACT), among other requirements. BACT determinations are made on a case-by-case basis by EPA or delegated permitting authority. EPA has interpreted the CAA PSD provisions as requiring BACT to be established for regulated pollutant emissions.

Under the Tailoring Rule, as of 1 July 2011, all new stationary sources with the potential to emit GHG emissions of 100,000 tpy CO₂e or more, and all existing facilities with GHG emissions of at least 100,000 tpy CO₂e undertaking modifications that would increase GHG emissions by at least 75,000 tpy CO₂e, became subject to PSD permitting requirements. On 29 June 2012, EPA issued the Step 3 Tailoring Rule, which retained the PSD applicability thresholds for GHG sources. In that rulemaking, EPA also finalised new plantwide applicability limitations (PALs) for GHG sources, allowing a source that emits or has the potential to emit 100,000 tpy of GHGs, but that has minor source emissions of all other regulated pollutants, to apply for a GHG PAL while still maintaining its minor source status.

What constitutes BACT for GHG emissions is subject to some uncertainty. On 10 November 2010, EPA issued a guidance document about applying PSD and Title V requirements to stationary sources after 2 January 2011. Although EPA BACT guidance heavily promotes energy efficiency measures, industry groups remain concerned that the cost and requirements to satisfy BACT are uncertain, potentially hindering economic development. Nonetheless, EPA and states have since issued approximately 80 PSD permits with GHG BACT determinations through the middle of fiscal year 2013, with only a very small number requiring anything other than energy efficiency measures, providing some comfort that the GHG rules have not entirely stalled the PSD permitting process.

For sources that are already operating, Title V of the CAA requires facilities that have the potential to exceed statutory limits on certain emissions to apply for and receive a Title V operating permit. For Title V operating permits, new or existing major sources that are otherwise subject to Title V also are subject to Title V requirements for GHGs. Beginning on 1 July 2011, facilities with the potential to emit over 100,000 tpy of GHGs are independently subject to Title V requirements. In the spring of 2012, EPA established a work group to evaluate potential GHG permit streamlining options to reduce the burdens on GHG sources. The group's report was delivered to EPA on 20 September 2012.

See question 3 for a discussion of the president's Memorandum regarding EPA's anticipated rulemakings to limit CO₂ emissions from new and existing power plants.

11 Oversight of emissions

How are emissions monitored, reported and verified?

See question 6 for a discussion of EPA's GHG monitoring and reporting rule.

Emission allowances (or similar emission instruments)

12 Regime

Is there an emission allowance regime (or similar regime) in your country? How does it operate?

No GHG emission allowance regime exists at the federal level, but regimes exist at the state and regional levels in some areas.

RGGI is a regional, emission allowance-based regime covering power sector GHG emissions. RGGI went into effect in 2009 in 10 northeastern and mid-Atlantic states (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont), but New Jersey withdrew in 2011. RGGI caps total power sector CO₂ emissions and reduces them over time by requiring fossil fuel-fired electric power generators with a capacity of 25 MW or greater to obtain allowances in amounts equal to their respective CO₂ emissions. Individual participating states create allowances, which are authorizations to emit one short ton of CO₂, in an aggregate amount equal to the regional emissions cap and sell these allowances at auctions or for a fixed price. Power plants in the RGGI states reduced their emissions by an average of 23 per cent during the first three years of the programme, a decrease that can be attributed to switching from coal to natural gas, energy efficiency measures, and lowered levels of economic activity.

In January 2013, California instituted GHG cap-and-trade regulations, putting in place an emission allowance regime that began capping aggregate annual emissions of GHGs from certain sectors of the economy. The cap will be reduced over time and enforced through the requirement that emitters of GHGs in capped sectors obtain compliance instruments – either allowances or offsets – in amounts equal to their respective emissions of GHGs. ARB creates allowances in amounts equaling the aggregate annual GHG emissions caps, reflecting declining emissions towards the AB 32 reduction targets. An allowance is defined as an authorisation to emit one metric ton of CO₂ equivalent. ARB will then allocate the allowances, auctioning some and distributing others at no cost to covered entities. The use of offsets is limited to 8 per cent of each covered entity's respective compliance obligation.

The WCI was formed with the intention of linking California's cap-and-trade scheme with similar regimes in Canadian provinces and, ultimately, other states. ARB approved regulations in April 2013 to link California's cap-and-trade programme to Quebec's programme. The first joint auction is planned for 2014 or later.

13 Registration

Are there any emission allowance registries in your country? How are they administered?

Currently, no emission allowance regime exists at the federal level.

Under RGGI, the majority of CO₂ allowances issued by each participating state are distributed through quarterly auctions. Quarterly allowance auctions began in September 2008, and RGGI held its twentieth auction in June 2013. RGGI sold approximately 39 million allowances at a clearing price of US\$3.21 at the June 2013 auction.

Under AB 32, ARB allocates some or all of needed allowances at no cost to covered entities in industrial sectors based on the risk of 'leakage' associated with individual industrial activities. Quarterly auctions began in November 2012. At the August 2013 auction, ARB auctioned approximately 13.9 million 2013 allowances at a clearing price of US\$12.22 and approximately 9.6 million 2016 allowances at a clearing price of US\$11.10.

14 Obtaining, possessing and using emission allowances

What are the requirements for obtaining emission allowances? How are allowances held, cancelled, surrendered and transferred?

No emission allowance regime exists at the federal level. The RGGI CO₂ Allowance Tracking System (RGGI COATS) is an electronic registry that records and tracks data on the issuance, initial ownership, transfer, and retirement of CO₂ allowances. In California and other WCI jurisdictions, the Compliance Instrument Tracking System Service (CITSS) tracks the issuance, initial ownership, transfer, and retirement of allowances and offsets.

Trading of emission allowances (or similar emission instruments)**15 Emission allowances trading**

What emission trading systems or schemes are applied in your country?

No emission allowance regime exists at the federal level. RGGI allows the trading of allowances such that a utility holding more allowances than it needs to cover its own compliance obligation is allowed to sell the excess allowances to another utility. Similarly, under California's cap-and-trade regulations, trading of allowances is generally permissible.

16 Trading agreements

Are any standard agreements on emissions trading used in your country? If so, describe their main features and provisions.

As of August 2013, there are no standard agreements on emissions trading in the US.

Sectoral regulation**17 Energy production, use and efficiency**

Give details of (non-renewable) energy production and consumption in your country. Describe any regulations on emissions. Describe any obligations on the state and private persons for minimising energy use and improving efficiency. Describe the main features of any scheme for registration of energy savings and for trade of related accounting units or credits.

The following information provides a snapshot of US energy production. According to the US Energy Information Administration (EIA), in 2011, the US exported more petroleum products, on an annual basis, than it imported for the first time since 1949. See questions 3 and 10 for a discussion of GHG-related regulations and permitting requirements, including EPA's anticipated rulemakings to limit CO₂

emissions from new and existing power plants. See question 19 for a discussion of renewable energy and efficiency measures.

Crude oil

- In 2012, the US produced 2,374,021 thousand barrels and imported 3,107,825 thousand barrels of crude oil.

Natural gas

- In 2012, there were 29,791,910 million cubic feet of gross withdrawals of natural gas in the US.
- In 2012, the US consumed 25,502 billion cubic feet of natural gas, with consumption divided among the following sectors:
 - lease and plant fuel (1,393 billion cubic feet);
 - pipeline and distribution use (715 billion cubic feet); and
 - volumes delivered to consumers (23,394 billion cubic feet).

Coal

- In 2012, the US produced 1,016,399 thousand short tons of coal. As of 2011, there were 1,325 coal mines in the US.
- In 2012, total coal consumption in the US was 890,483 thousand short tons of coal, divided among the following sectors:
 - electric power sector (824,758 thousand short tons);
 - coke plants (20,751 thousand short tons);
 - other industrial (42,961 thousand short tons); and
 - commercial and institutional (2,045 thousand short tons).

Nuclear

- According to preliminary estimates from the EIA for 2012, nuclear power plants generated approximately 770 billion MWh of electricity.

Emissions

- According to the EPA's estimates, total US anthropogenic GHG emissions in 2011 were 6,702 MMTCO₂e. This 1.6 per cent decrease over 2010 levels was mostly due to decreased electricity consumption because of a milder winter, decreased coal consumption for electric power generation, and greater vehicle fuel efficiency.
- CO₂ emissions from fossil fuel combustion comprise the majority of energy-related CO₂ emissions in the US. In 2011, fossil fuel combustion emitted 5,277.2 teragrams (Tg) of CO₂ in the following categories: electricity generation (2,158.5 Tg of CO₂), transportation (1,745.0 Tg of CO₂), industrial (773.2 Tg of CO₂), residential (328.8 Tg of CO₂), commercial (222.1 Tg of CO₂), and fossil fuel combustion in US territories (49.7 Tg of CO₂).

18 Other sectors

Describe, in general terms, any regulation on emissions in connection with other sectors.

See questions 3, 10 and 19 regarding regulations and policies pertaining to GHG emissions and renewable energy. Other pollutant emissions are regulated under the CAA and other federal and state programmes, where applicable.

Renewable energy and carbon capture**19 Renewable energy consumption, policy and general regulation**

Give details of the production and consumption of renewable energy in your country. What is the policy on renewable energy? Describe any obligations on the state and private parties for renewable energy production or use. Describe the main provisions of any scheme for registration of renewable energy production and use and for trade of related accounting units or credits.

The US renewable energy market is rapidly expanding. The US Energy Information Administration projects that electricity

generation from renewable sources will grow from 13 per cent in 2011 to between 16 per cent and 31 per cent in 2040, depending on a variety of factors, particularly the price of natural gas and implementation of policies to reduce GHGs. The DOE's National Renewable Energy Laboratory estimates that renewables could supply between 30 per cent and 80 per cent of US electricity based on various scenarios by 2050. Most of this growth in renewable electricity generation in the power sector comes from growth in solar and wind generation.

Wind energy production totaled 1.168 quadrillion Btu in 2011. Solar energy production surpassed the 100 trillion Btu mark for the first time in 2010. The largest single source of renewable energy in the US continues to be hydropower, which generated more than 3.1 quadrillion Btu in 2011, though hydropower production depends on water availability and can vary significantly from year to year.

The US does not have a comprehensive policy on renewable energy production or use. Instead, there is a patchwork of federal and state regulations and incentive programmes. Key examples include, but are not limited to:

- Federal Renewable Energy Production Tax Credit (PTC) – An inflation-adjusted tax credit for electricity produced from qualifying renewable energy sources or technologies. It recently was extended by the American Taxpayer Relief Act to projects that begin construction in 2013. The PTC for certain incremental hydro, wave and tidal energy, geothermal, municipal solid waste (MSW), and bioenergy projects is also applicable to some qualifying projects that begin construction in 2013.
- Federal Renewable Energy Investment Tax Credit (ITC) – A tax credit available as an alternative to the PTC described above. It may be taken for equipment eligible to receive the PTC and for facilities that produce renewable electricity. The ITC is available for eligible systems placed in service by 31 December 2016.
- Federal energy loan guarantee and funding programmes – The Advanced Technology Vehicles Manufacturing Loan Program authorises DOE to fund certain eligible automotive manufacturers and component suppliers to finance the cost of re-equipping, expanding or establishing manufacturing facilities in the US to produce advanced technology vehicles or components. Section 1703 of Title XVII of the Energy Policy Act of 2005 authorises DOE to make loan guarantees to eligible innovative clean energy technologies that are typically unable to obtain conventional private financing due to high technology risks. Section 1705 of Title XVII of the Energy Policy Act of 2005 authorised DOE to make loan guarantees to eligible renewable energy, transmission and biofuel projects that commenced construction no later than 30 September 2011. The section 1705 programme expired on 30 September 2011.
- State financial incentives – In 2012, every state had some type of financial incentive to subsidise the installation of renewable energy equipment through grants, rebates, tax credits, or other measures.
- Renewable portfolio standards – As discussed below, state requirements for utilities to purchase certain percentages of their electricity from renewable resources is a major driver for renewable development in the US.
- Net-metering programmes – Net-metering programmes allow grid-connected customers to offset their electrical load and/or sell back electricity to their utility through renewable energy systems installed on their property. Forty-three states and the District of Columbia have statewide net metering programmes in place.
- Feed in tariffs (FITs) – Several states and individual utilities purchase electricity from certain types of renewable energy systems at higher rates than retail electricity rates.
- Green power programmes – Consumers in many states can purchase 'green power,' which represents electricity generated from specific types of renewable resources.
- Ethanol and other renewable motor fuels – There are a variety of federal and state requirements and incentives for the production, sale, and use of ethanol, biodiesel, and other fuels made from biomass. See question 24.
- Renewables research and development (R&D) – DOE and other federal agencies fund research and development of renewable energy technologies.

Federal agencies also have implemented various programmes to expedite development of renewable energy resources on public lands. These measures are, in part, intended to fulfill the goal set by the Energy Policy Act of 2005 for the US Department of the Interior (DOI) to approve 10,000 MWs of electricity from non-hydropower renewable energy projects located on public lands, a goal which was fulfilled on 9 October 2012. President Obama's 'New Energy for America' plan also established national goals of producing 10 per cent of the nation's electricity from renewable sources by 2012 and 25 per cent by 2025. Measures include, but are not limited to:

- The DOI and the Bureau of Land Management (BLM) implemented a Solar Energy Program (SEP) to facilitate approval and development of solar energy generation and transmission facilities on BLM-administered lands in six Western states (California, Nevada, Utah, Colorado, Arizona and New Mexico). A Record of Decision was issued on 12 October 2012 approving the Final Programmatic Environmental Impact Statement for the SEP. The SEP concentrates on 17 initial Solar Energy Zones covering 285,000 acres of public land.
- The DOI created Renewable Energy Coordination Offices in four Western states (California, Nevada, Wyoming, and Arizona) and smaller renewable energy teams in five other states (New Mexico, Idaho, Utah, Colorado and Oregon) to expedite processing of applications for new renewable energy projects on public lands.
- The White House released a memorandum on 7 June 2013, Transforming Our National Electric Grid Through Improved Siting, Permitting, and Review, that instructed federal agencies to review and likely expand existing energy corridors. The memorandum seeks to reduce overall regulatory burden by creating a framework for collaboration between agencies.

State renewable energy mandates are driving demand for renewable energy. Currently 29 states, Washington DC and two territories have renewable portfolio standards, and eight states and two territories have renewable portfolio goals, requiring that a percentage of electric power sales come from renewable resources. In 2011, a seminal state programme, California's Renewables Portfolio Standard (RPS), was increased to require regulated sellers of electricity to procure 33 per cent of their total energy supplies from certified renewable resources by 2020, which represents a significant increase from the previous 20 per cent by 2010 RPS. Key changes of California's RPS legislation include:

- public utilities must comply with the new RPS requirements;
- the law sets mandatory minimum allocations of in-state and limited out-of-state renewable resources that may be used to satisfy the RPS requirements and these mandatory minimums increase over time;
- the law permits the use of Tradable Renewable Energy Credits (TRECs) for RPS compliance but lowers the maximum limits for using TRECs over time; and
- the law permits the use of out-of-state firm and shaped renewable resources to satisfy a portion of a regulated entity's RPS compliance obligations.

In 2012, California's three largest utility providers obtained 19.6 per cent of their retail electricity from renewable resources.

20 Wind energy

Describe, in general terms, any regulation of wind energy.

Wind energy is supported by a mix of federal incentives, including the PTC now worth 2.3 cents per kWh for fully qualifying energy sources, and the ITC. The PTC has been extended to projects that begin construction before 31 December 2013. See question 19 for further information on the PTC and ITC.

New wind power installations set a record in 2012 in the US, with 13,124 megawatts installed throughout the year. The fourth quarter of 2012 was particularly active, as the PTC was set to expire at the end of the year. Although the PTC was extended through 2013, the uncertainty surrounding its extension has negatively affected the growth of wind power in 2013. Currently, more than 65 utilities in the US have contracted for wind power.

As a general rule, wind project siting and land use approvals are matters of state and local concern unless the project is located on federal lands. Nonetheless, federal, state, and local environmental, land use, or natural resources laws or regulations may trigger the need for myriad federal, state and local approvals. Access to transmission remains a significant constraint for wind projects located in remote locations, and developing new or expanded transmission lines can increase the complexity of the regulatory requirements.

For illustrative purposes, a utility-scale wind facility and related transmission facilities could require approvals under the following laws, depending on the location of the project and resources impacted:

- Federal Lands Policy and Management Act;
- Clean Water Act;
- Clean Air Act;
- National Environmental Policy Act;
- Coastal Zone Management Act;
- National Historic Preservation Act;
- Endangered Species Act;
- Marine Mammals Protection Act; and/or
- various state and local siting, land use and/or environmental laws or regulations.

Renewable energy projects have been heavily litigated, particularly in California and in the southwest. For example, from 2004 through 2012, approximately 34 renewable energy projects generated over 60 lawsuits, including 14 solar energy projects, 11 wind energy projects, three biomass projects, two geothermal projects, two transmission line projects, one wave energy project and one challenge to the DOE's federal loan guarantee programme implicating renewable energy projects across the US. Successful litigation challenges were relatively infrequent, but even if litigation did not result in the challenger prevailing, many renewable energy projects were delayed, and some for substantial periods.

21 Solar energy

Describe, in general terms, any regulation of solar energy.

Solar energy is supported by a mix of federal and state incentives and programmes. See question 19 for a discussion of the many programmes and policies in place that incentivise the development of renewable energy projects.

For large, utility-scale solar power facilities, regulatory approvals would likely be conceptually similar to the approvals needed for a large wind facility, discussed above in Response 20, depending on the location of the solar project and the resources impacted. States may require certification of a solar facility before energy can be counted towards the state's renewable energy mandate, such as California's RPS.

Smaller, rooftop solar installations on commercial or residential structures typically do not require major regulatory approvals, although local building or development permits may apply. Some states have programmes in place to allow some small-scale solar

installations to count towards a state's renewable energy standard. For example, in California, small solar facilities, also known as distributed generation facilities, can be certified for the RPS. To obtain certification, smaller solar facilities must meet the broader eligibility requirements for the solar resource used (ie, photovoltaic), participate in the Western Renewable Energy Generation Information System, and report generation using a meter with 2 per cent or higher accuracy. Facilities that receive state funding under certain programmes or participate in net metering tariffs are also eligible. Several other states allow small solar facilities to qualify for some credit in their renewable energy standards, including Arizona, Colorado, Michigan, Nevada, New Jersey and Texas.

22 Hydropower, geothermal, wave and tidal energy

Describe, in general terms, any regulation of hydropower, geothermal, wave or tidal energy.

The Federal Energy Regulatory Commission (FERC) issues licences for construction of new hydropower projects. FERC regulates over 1,700 non-federal dams in the US and currently oversees licenses for more than 1,000 hydropower facilities. Other hydropower facilities in the US are operated by BLM, US Army Corps of Engineers and Tennessee Valley Authority. Hydropower resources also qualify for some states' renewables portfolio standards and net metering programmes.

The Bureau of Reclamation (BOR) uses Lease of Power Privileges (LOPPs) to expand public/private partnerships in small hydropower. A LOPP gives a non-federal entity use of a BOR facility for electric power generation. A LOPP project must not impair the efficiency of BOR generated power or water deliveries, jeopardise public safety, or negatively affect any other Reclamation project purposes.

Geothermal projects are regulated by a mix of federal and state agencies, with requirements varying by state and whether the project is located on state, federal or private land. The Geothermal Steam Act of 1970 requires DOI to establish rules and regulations for the leasing of geothermal resources on lands managed by federal agencies. These regulations are issued by the Bureau of Land Management. For injection wells, the existing EPA Underground Injection Control Regulations under the federal Safe Drinking Water Act define Class V wells to include injection wells associated with the recovery of geothermal energy.

The first commercial, grid-connected tidal energy project in the US was deployed off the coast of Eastport, Maine in July 2012. Several other wave and tidal energy projects are in developmental stages. The federal government provides support for wave and tidal power development through the DOE's Water Power Program.

23 Waste-to-energy

Describe, in general terms, any regulation of production of energy based on waste.

Electricity and fuels can be produced by collecting, processing and converting different waste products into energy. Some jurisdictions include generating electricity from landfill gas as a renewable resource while excluding incineration of municipal solid waste (MSW). See Response 20 for an illustration of the type of siting, land use, and environmental permits that could be required depending on the location of the project and resources impacted.

The US currently has 86 facilities for combustion of municipal solid waste with energy recovery in 25 states, mainly in the north-east. The 86 facilities have the capacity to produce 2,720 megawatts of power per year by processing more than 28 million tons of waste per year.

Update and trends

In the absence of comprehensive federal legislation on climate change, which appears unlikely in the near-term given US Congressional gridlock on broad measures to address climate change, the EPA has been regulating GHG emissions through its pre-existing authority under the federal Clean Air Act. With the re-election of President Obama in 2012, the EPA and other federal agencies are expected to continue to use existing authority to regulate GHG emissions and to support renewable energy technologies through a

combination of legislative and regulatory tools. The Climate Action Plan presents President Obama's strategy for cutting GHGs, preparing the US for the effects of climate change, and spurring international efforts to address global climate change. In conjunction, President Obama issued a memorandum to EPA, directing EPA to re-propose CO₂ emissions New Source Performance Standards for new power plants and CO₂ guidelines for existing power plants under EPA's Clean Air Act authority.

24 Biofuels

Describe, in general terms, any regulation of biofuels.

In 2007, EPA established a national renewable fuel standard (RFS) programme. This RFS programme establishes the annual renewable fuel standards, responsibilities of refiners and other fuel producers, a trading system and other compliance mechanisms, and recordkeeping and reporting requirements. It requires that 15.2 billion gallons of renewable fuel be used in 2012, increasing to 36 billion gallons per year by 2020. A certain percentage of the renewable fuel blended into transportation fuels must be cellulosic biofuel, biomass-based diesel and advanced biofuel. The 2013 RFS requires that 16.55 billion gallons of renewables be blended into the US fuel supply including 1.28 billion gallons of biomass-based diesel, 2.75 billion gallons of advanced biofuels and six million gallons of cellulosic biofuels.

Some individual states have implemented their own regulations, such as acquisition or fuel use standards, taxes, fuel production or quality regulations, and air quality or emissions regulations. For example, California has implemented its Low Carbon Fuel Standard (LCFS), which requires a reduction in the carbon intensity of transportation fuels that are sold, supplied or offered for sale in the state by a minimum of 10 per cent by 2020. Beginning 1 January 2011, transportation fuel producers and importers had to meet specified average carbon intensity requirements for fuel in each calendar year. Carbon intensity reductions are based on reformulated gasoline mixed with 10 per cent corn-derived ethanol and low-sulphur diesel fuel. The LCFS programme allows producers and importers to generate, acquire, transfer, bank, borrow and trade credits. A federal court ruled in December 2011 that the LCFS programme violates the interstate commerce clause of the US Constitution. The ARB appealed the decision to the Ninth Circuit and, although the case was heard in late 2012, no decision has been issued.

25 Carbon capture and storage

Describe, in general terms, any policy on and regulation of carbon capture and storage.

Carbon capture and sequestration (CCS) is a process where CO₂ from a stationary source is captured, transported, and permanently sequestered, typically in underground geologic formations. CCS primarily involves combining existing and proven technologies in new ways. CCS has a substantial potential to reduce GHG emissions from industrial sources but has not been widely demonstrated on a commercial scale.

Several large CCS demonstration projects in the US are currently moving through the entitlement or financing process. These projects are potentially supported by resources allocated by the ARRA, as well as a variety of federal and state incentives, including tax credits and loan guarantees.

CCS Regulatory Framework

The federal Safe Drinking Water Act (SDWA) requires an injection well permit for geologic sequestration of CO₂. The EPA has created a new 'class' of injection wells for CO₂ injection for geologic sequestration. The Class VI well requires the use of materials

compatible with geological sequestration and ensures that financial responsibility requirements are in place. Class VI wells must also comply with certain Monitoring, Reporting and Verification (MRV) requirements as part of EPA's GHG Mandatory Reporting Rule programme. Currently, no states have been delegated Class VI permitting authority by EPA.

Alternatively, Class II injection well permits have authorised enhanced oil recovery (EOR) activities for many years, as discussed below. Some CCS projects may rely upon Class II injection wells for both EOR and sequestration purposes, provided drinking supplies are not adversely impacted. Most states have permitting authority over Class II wells based on delegation from EPA. Use of a Class II well does not require EPA approval of an MRV, although facilities may choose to opt into EPA's MRV programme.

For the PSD permitting programme discussed in questions 3 and 10, EPA, or an authorised state permitting agency, must determine whether CCS technologies constitute BACT for GHG emissions. In its PSD permitting guidance, EPA also declined to designate CCS as BACT but did not preclude consideration of CCS options in the future. On 1 December 2010, EPA published its final rule concerning an expansion of the GHG reporting rule discussed in question 6 to include facilities that inject and store CO₂ for the purposes of geologic sequestration or enhanced oil and gas recovery. CCS could also play an important role as a control technology for the anticipated GHG regulations for power plants, discussed in question 3.

On 8 August 2011, EPA proposed a regulation clarifying how the Resource Conservation and Recovery Act (RCRA) applies to CO₂ streams for CCS projects. The proposed regulation includes a conditional exemption from the RCRA requirements for hazardous CO₂ streams in order to facilitate implementation of geologic sequestration. The EPA is expected to finalise the regulation prior to the end of 2013.

CCS projects are potentially affected by several other regulatory programmes. At the federal level, questions 3 and 9 describe potentially applicable CAA regulations. NEPA and state equivalents, such as the California Environmental Quality Act, may present regulatory hurdles by requiring environmental review of project impacts. State and local agencies may also impose permitting requirements on CCS projects.

Co-benefits of CO₂ Enhanced Oil Recovery

CCS has long been touted as a potentially critical means for reducing GHG emissions from carbon-intensive industrial sources. High costs, complex regulatory schemes and decreasing governmental incentives, however, have hindered the widespread development of CCS projects. But a growing trend of deriving multiple revenue streams from the CO₂ associated with CCS projects – particularly using captured CO₂ for EOR – may help spur CCS development.

EOR has been used successfully since the early 1970s to recover additional oil from existing sources, allowing 30-60 per cent more production than without EOR. In the past, the CO₂ used for EOR has come from natural sources. However, combining CCS with CO₂ EOR increases supplies of CO₂ and offers expanded use of CO₂ EOR for sites near natural supplies.

EIA estimates that domestic use of CO₂ EOR will produce over four billion additional barrels of oil between 2011 and 2035. DOE estimated CO₂ EOR, over 30 years, could potentially spur US\$10 trillion in economic development, create 2.5 million jobs, and drive a 30-40 per cent reduction in imported oil. EOR using CO₂ captured from a CCS project can also offer significant financial benefits while facilitating long-term geologic sequestration of the CO₂.

Climate matters in transactions

26 Climate matters in M&A transactions

What are the main climate matters and regulations to consider in M&A transactions and other transactions?

Matters to consider include:

- the impacts of future carbon costs favoring industries with low GHG emissions (ie, incentives to invest in cleantech) and disfavoring higher-emitting industries (ie, chilling effect on M&A due to uncertainty, new liability associated with increased costs, and public relations concerns);

- continuing EPA regulation of GHGs under the CAA and potential future piecemeal or wholesale Congressional action;
- continuing and expanding state and regional GHG regulatory programmes;
- continuing and expanding environmental mitigation potentially required by federal and state environmental review programmes for applicable projects;
- direct and indirect effects of higher energy costs;
- insurance considerations, including effects of changing weather patterns on particular industries and geographies;
- enhanced Securities and Exchange Commission requirements regarding disclosure of climate-related liabilities;
- litigation exposure to claims based upon alleged climate impact of corporate operations or of climate changes on corporate operations; and
- financial institution adherence to Equator Principles, which include requirements for climate effects.

LATHAM & WATKINS LLP

Robert Wyman
Marc Campopiano
Joshua Bledsoe
Buck Endemann
Aron Potash
Stacey VanBelleghem

robert.wyman@lw.com
marc.campopiano@lw.com
joshua.bledsoe@lw.com
buck.endemann@lw.com
aron.potash@lw.com
stacey.vanbelleghem@lw.com

355 South Grand Avenue
 Los Angeles
 CA 90071-1560
 United States
 Tel: +1 213 891 8346 (Robert)
 +1 213 891 8758 (Aron)
 Fax: +1 213 891 8763

650 Town Center Drive #2000
 Costa Mesa
 CA 92626
 United States
 Tel: +1 714 755 2204 (Marc)
 +1 714 755 8049 (Joshua)
 Fax: +1 714 755 8290

600 West Broadway, Suite 1800
 San Diego
 CA 92101-3375
 United States
 Tel: +1 619 238 2904 (Buck)
 Fax: +1 619 696 7419

555 Eleventh Street, NW, Suite 1000
 Washington, DC
 20004-1304
 United States
 Tel: +1 202 637 2153 (Stacey)
 Fax +1 202 637 2201

www.lw.com

Annual volumes published on:

- Acquisition Finance
- Air Transport
- Anti-Corruption Regulation
- Anti-Money Laundering
- Arbitration
- Asset Recovery
- Banking Regulation
- Cartel Regulation
- Climate Regulation
- Construction
- Copyright
- Corporate Governance
- Corporate Immigration
- Data Protection & Privacy
- Dispute Resolution
- Dominance
- e-Commerce
- Electricity Regulation
- Enforcement of Foreign Judgments
- Environment
- Foreign Investment Review
- Franchise
- Gas Regulation
- Insurance & Reinsurance
- Intellectual Property & Antitrust
- Labour & Employment
- Licensing
- Life Sciences
- Mediation
- Merger Control
- Mergers & Acquisitions
- Mining
- Oil Regulation
- Outsourcing
- Patents
- Pensions & Retirement Plans
- Pharmaceutical Antitrust
- Private Antitrust Litigation
- Private Client
- Private Equity
- Product Liability
- Product Recall
- Project Finance
- Public Procurement
- Real Estate
- Restructuring & Insolvency
- Right of Publicity
- Securities Finance
- Shipbuilding
- Shipping
- Tax Controversy
- Tax on Inbound Investment
- Telecoms and Media
- Trade & Customs
- Trademarks
- Vertical Agreements



For more information or to purchase books, please visit:
www.gettingthedealthrough.com



Strategic research partners of the ABA International section



THE QUEEN'S AWARDS
 FOR ENTERPRISE:
 2012



The Official Research Partner of the International Bar Association