

# Electricity, Oil and Gas Regulation in the United States

pillsbury

ATTORNEY ADVERTISING. The comments contained herein do not constitute legal opinion and should not be regarded as a substitute for legal advice. Results depend on a number of factors unique to each matter. Prior results do not guarantee a similar outcome.

Pillsbury Winthrop Shaw Pittman LLP  
1540 Broadway | New York, NY 10036 | 877.323.4171  
[www.pillsburylaw.com](http://www.pillsburylaw.com)  
© 2010 Pillsbury Winthrop Shaw Pittman LLP. All rights reserved.

Reproduced with permission from Law Business Research. These articles were first published in the *Getting the Deal Through* publications *Electricity Regulation 2009*, *Electricity Regulation 2011*, *Oil Regulation 2010* and *Gas Regulation 2010*. For further information please visit [www.GettingtheDealThrough.com](http://www.GettingtheDealThrough.com).

Professionals in the power, oil and gas sectors of the energy industry are finding that these fields are experiencing a great deal of convergence. Generators must compare the benefits and costs of renewable and nuclear power against the attributes of natural gas sources—whether procured on the home market or via international LNG shipments or cross-border gas pipelines. Gas suppliers must understand not only the downstream electricity markets, but also oilfield concepts such as gas recovered in associated oil production and domestic shale resources newly accessible through horizontal drilling. And oil producers concerned with the future of transportation fuels must be aware of electricity, carbon-to-liquids, and biofuel as competitive sources in the decades to come.

Pillsbury energy lawyers have strong experience across the entire fuel spectrum—nuclear, renewables, oil and gas, and conventional generation—and are well positioned to speak on the regulatory aspects of each of these converging sectors. We have contributed to the Getting the Deal Through series for several years. This publication asks energy lawyers to provide detailed overviews of the regulatory landscape in each of a number of producing and consuming countries. This brochure contains our introductory remarks on electricity markets generally, and our latest analyses of the power, oil and gas sectors in the United States of America in particular. We hope this information is useful as an initial reference for our clients and our other friends.

Robert A. James  
Co-leader, Global Energy Industry Team  
Pillsbury Winthrop Shaw Pittman LLP

# Electricity Introduction

# Electricity Introduction

Joseph H Fagan, Becky M Bruner, Michael S Hindus and Robert A James

Pillsbury Winthrop Shaw Pittman LLP\*

The current state of electric infrastructure in the US and the rest of the world is inadequate to serve future energy demand. Mindful of this trend, legislators and regulators in the US have adopted policies aimed at promoting the development of such infrastructure, while at the same time acknowledging that much of it will facilitate more widespread use of 'clean' renewable energy sources. By some estimates, the cost of building the new and replacement electric infrastructure projects to meet the anticipated demand by 2030 will be close to US\$600 billion. Providing sufficient incentives for market participants to invest in these projects, while at the same time encouraging the use of renewable 'carbon-friendly' energy sources in as efficient and as cost-effective manner as possible, is illustrative of one of key challenges facing the US in the 21st century.

## Status of electric infrastructure in the United States

Electricity consumption in the US is expected to increase by at least 40 per cent by 2030. To provide adequate and reliable electricity service to meet this projected demand, the US will need to invest heavily in all aspects of its energy infrastructure. The Energy Information Administration (EIA) estimates that 258GW of new generating capacity will be needed by 2030, at a cost of approximately US\$412 billion (in 2005 dollars).

More than half of the electricity generated in the US comes from coal, and coal is projected to remain a vital energy resource. In response to concerns about global warming, new technologies are being developed to eliminate or capture harmful greenhouse gases (GHG) emitted from coal-fired power plants. The US is also encouraging development of renewable energy sources, such as wind, solar, geothermal, hydrogen and biomass. Currently, renewable resources are used to generate about 7 per cent of the total electricity produced in the US. Nuclear energy is the second-largest fuel source for electricity production in the US today and it is the largest source of emission-free generation. Natural gas, however, is projected to be the major fuel source for electricity in the next 20 years when 900 of the next 1,000 power plants are expected to be fuelled by natural gas.

Most of the US's existing transmission grid was constructed prior to the advent of wholesale competition and active market trading. This ageing transmission system must be expanded and upgraded to meet the needs of the growing US population, robust wholesale trading and the interconnection of distant generation resources, particularly wind and solar. The Edison Electric Institute reports that from 2000 to 2006, electric companies invested more than US\$37.8 billion in the nation's transmission system, and that they are expected to invest an additional US\$37 billion from 2007 to 2010.

## Legislative developments

### Federal

The Energy Policy Act of 2005 (EPAct 2005) made important modifications to US energy policy. Among them, EPAct 2005 directed

FERC to promote the development of transmission infrastructure by promoting capital investment in the enlargement and improvement of the nation's transmission grid. EPAct 2005 also allowed federal income tax credits and accelerated depreciation for certain investments in transmission property.

The Energy Improvement and Extension Act of 2008 (Energy Improvement Act) adopted an extension and expansion of the tax incentives for renewable energy projects as well as a host of related tax incentives for energy development. Principal among these is an extension of the 'production tax credits' for renewable energy sources, which were otherwise due to expire at the end of 2008. Such extensions are critical to the industries affected, since the production tax credits are essential to the economics of the projects using the technologies. However, the relatively brief extensions will not accommodate longer-term projects. In addition, US\$800 million of 'clean renewable energy bonds' were authorised to finance qualifying renewable energy facilities for governmental, public power and electric cooperative entities.

In contrast to the relatively brief extension of the production tax credits, the Energy Improvement Act provides for an eight-year extension of the 30 per cent investment tax credit for solar energy and fuel cells. This change is likely to act as a boost for the long-term planning and development of large-scale solar and fuel cell projects. Investment credits were also added for several resources, including, qualifying cogeneration systems, small wind and geothermal heat pump systems. In addition, investment tax credits were made available for qualifying coal and gasification projects. Credits are increased for those projects that achieve the greatest percentage of carbon dioxide separation and sequestration.

In the US and around the world, governments are moving to reshape their energy policies, regulate GHG emissions and otherwise implement measures aimed at curbing the effects of global warming. In the coming years, it is anticipated that initiatives will be adopted in the US aimed at reducing GHG emissions that may include establishment of a cap-and-trade programme or a carbon tax.

### State

Many state governments have not waited for comprehensive federal action and have instead acted on their own. They have developed measures to reduce GHG emissions that include initiatives to conduct emissions inventories, project future emissions based on population and economic growth, and identify areas where emissions can be reduced and develop reduction goals. States and regions are very active in promulgating legislation and taking decisive, discrete action that will impact the electricity generation sector.

In addition to climate change legislation, more than two dozen states have implemented renewable portfolio standards (RPS) aimed at reducing carbon emissions and encouraging the development of renewable resources. RPS guidelines require that affected electricity

providers (such as electric utilities) include a specified amount of renewable energy as part of their generation portfolios.

### Regulatory developments

#### Pro-transmission policies

In recent years, the US has developed a number of pro-transmission policies, including development of an incentive base rate structure for transmission facilities as well as identification of areas of transmission congestion.

EPAAct 2005 directed the Federal Energy Regulatory Commission (FERC) to establish, by rule, an incentive-based rate structure for the transmission of electric energy in interstate commerce. Specifically, the incentive rate structures must provide a return on equity (ROE) that attracts investment and allows recovery of all costs prudently incurred in complying with new reliability standards. The rulemaking resulted in Order No. 679, essentially affirmed by Order Nos 679-A and 679-B. Order No. 679 established a framework for incentive-based ROEs available to all public utilities for new investments in transmission that benefit consumers by ensuring reliability or reducing the cost of delivered power by reducing congestion. In Order No. 679-A, the FERC specifically stated that the 'most compelling case' for incentive-based ROEs is new projects with special risks or challenges, not routine investments made in the ordinary course of expanding the system to provide safe and reliable transmission service. FERC has approved close to a dozen of such proposals under its new transmission incentives policy.

In addition, EPAAct 2005 directed the Department of Energy (DoE) to identify transmission congestion and constraints and to conduct a nationwide study of electric transmission congestion every three years. Geographical areas where transmission congestion or constraints adversely affect consumers may be designated as national interest electric transmission corridors (national corridors). The DoE has designated two national corridors: the Mid-Atlantic Area National Corridor and the Southwest National Corridor. This action puts the states and the industry on notice that there are transmission congestion problems in such areas that must be addressed. It also provides the FERC with new federal 'backstop' siting authority to issue construction permits for facilities located in a national corridor under certain circumstances. For example, if an applicant does not receive approval from a state to site a proposed new transmission project within a national corridor within a year, the FERC may consider whether to issue a permit and to authorise construction.

#### Interconnection policies

Interconnection policy is a priority for all advocates of locationally constrained electric power generation, including wind, solar and biomass resources. In order to make these technologies work on the scale necessary to achieve long-lasting rewards, they must be integrated into the existing transmission system. Before these resources can be interconnected, the transmission provider must perform a series of impact studies and consider alternatives for interconnection points. The FERC's existing set of rules are based on its Order No. 2003, as reflected in each transmission provider's interconnection procedures and agreements for large generators and small generators of 20MW and below. The FERC also formalised a rule specifically for wind power facilities larger than 20MW.

With the steep rise in applications from small renewable projects, predominantly wind, the normal queuing process that traditionally subscribed to a 'first-come-first-served' philosophy is being overwhelmed and bogged down. Many transmission operators are being forced to adjust their queuing rules in an attempt to alleviate the resulting backlogs. The FERC facilitated an industry-wide review of queuing practices by holding a technical conference in late 2007. In March 2008, The FERC issued an order requiring regional

transmission operators (RTO) and independent system operators (ISO) to evaluate their queue management policies. Other transmission providers, outside the realm of ISOs and RTOs, are facing similar issues. Going forward, numerous reforms are being considered, including changes to reservation priority, increase to up-front payments, open seasons and temporary rule suspensions to allow RTOs and ISOs to clear the queue more often than the three-year grace period that was adopted under Order No. 2003.

Within this framework, interconnection policy is quickly evolving. Significant regional variations exist, with queuing practices becoming part of the discussion of forward capacity markets in the north-eastern US and in the PJM Interconnection (encompassing such states as Pennsylvania, New Jersey, Maryland, Delaware, Virginia and West Virginia), and with different solutions being implemented in California. In the end, the laudable, if distant, goal of 'grid parity' for renewable generation resources will be little more than an illusion without efficient and safe procedures for incorporating numerous types of new generation into the existing transmission system.

### Current challenges to electric infrastructure development

Significant investment in all aspects of electric infrastructure is needed to meet the projected demands of the economy and the growing population in the US for reliable, efficient and affordable electricity. Development of new, emission-free generation facilities and expansion of the nation's bulk power transmission grid to connect new generation, relieve congestion and ensure reliability are essential. Development and integration of new generation resources, including renewables, to the transmission grid face many obstacles. Construction of new backbone transmission lines is needed along critical corridors where existing facilities are constrained or new facilities are needed (or both). While substantial efforts to expand the bulk power transmission grid are underway, these projects face substantial challenges.

#### Transmission constraints

Transmission constraints are often an obstacle to integrating new generation resources. The geographical location of renewable resources, for example, is often far removed from the population centers that the new infrastructure is intended to serve. The areas best suited for wind power are located in the Midwest from north-western Texas to the Dakotas, as well as coastal areas and mountain summits; the best solar regions, not surprisingly, are located in or near the American south west. In many instances, these location constraints present financial and commercial obstacles as the necessary level of transmission investment required to link these resources to distant load centres can be quite substantial. Indeed, this is a key challenge that has become even more pronounced with the implementation of RPS programmes throughout several dozen states. Numerous studies, including one by the DoE entitled '20 per cent Wind Energy by 2030, Increasing Wind Energy's Contribution to US Electricity Supply' have concluded that electric transmission must be regarded as 'a critical infrastructure element needed to enable regional delivery and trade of energy resources, much as the interstate highway system does for the nation's transportation needs'.

#### Challenge of bringing intermittent resources online

Renewable resources, such as wind and solar are not only locationally constrained but also face the obstacle of being uncontrollably variable, or intermittent in nature, providing electricity only when the wind is blowing or the sun is shining. The sporadic nature of intermittent resources can potentially destabilise the grid and impair system reliability if, for example, significant declines in renewable generation occurs simultaneously with rising load. For these reasons, among others, the penetration of intermittent renewables in most power grids is low; however, technology advances and regional planning decreases the variable nature of intermittent resources. For example,

by aggregating renewable units located in different geographic areas through dynamic scheduling, the overall variability of output is decreased. In addition, the variability associated with wind power and solar power may be managed through the use of conventional power generation assets that are dispatchable. When the wind stops blowing, a conventional power generation resource, such as a natural gas generator, is ramped up to compensate for the shortcoming.

#### Siting

State and local siting authorities have long had a negative impact on the prospects of most proposed transmission capacity expansion projects. With the exception of projects proposed in Alaska, Hawaii or parts of Texas, all transmission expansion projects have beneficial effects in multiple states. Yet, each state in which the proposed project would be implemented has the power to block the project, and some state agencies are required by law to consider only in-state benefits when deciding whether to approve a project. To make matters worse, at least 22 states allow localities to block transmission expansion projects, which often elicit powerful NIMBY-based local opposition. This problem has become so severe in many parts of the country that developers have become unwilling to even propose a transmission expansion project.

In recent years, however, several pro-transmission policies have addressed this issue. Policymakers have begun a process providing for federal or, possibly, regional siting and eminent domain authority for interstate transmission projects. The first concrete step towards federal siting authority was section 1221 of EPAAct 2005, which gives FERC limited jurisdiction over the siting of electric transmission lines that fall within an official DoE-designated national corridor. For example, if an applicant does not receive approval from a state to site a proposed new transmission project within a national corridor within a year's time, the FERC may consider whether to issue a permit and to authorise construction. Notably, however, obtaining a federal permit from FERC still would not in and of itself constitute a right-of-way across public or private property along a transmission route. Such rights of way must be separately obtained. Moreover, outside the confines of national corridors, the states' traditional siting authority over the electric transmission facilities remains as a significant bar-

rier to expansion projects. Many observers are of the view that the lack of comprehensive federal siting authority for interstate electric transmission lines, in contrast to the current statutory scheme governing natural gas pipelines, will serve to handicap the expansion and replacement of the electric transmission grid.

Recovery of up-front costs of new technologies and new generation Any investor in new energy infrastructure will require a reasonable opportunity to recover its costs, either through cost-of-service regulated rates or through market-based or negotiated rates. A critical factor in whether any such investment would be made is whether the regulator will allow for recovery of the associated costs. Some new generation technologies, for example 'clean coal' technologies to eliminate or capture harmful greenhouse gases emitted from coal-fired power plants, are highly complex, risky and expensive. Investors are often unwilling to invest in such technologies without some degree of up-front assurance of cost recovery from state regulators. Similarly, development of generation resources, such as wind and solar, in remote locations may involve considerable risk if interconnection to the transmission grid or transmission rights for delivery to load centres are questionable. The absence of a regional transmission planning process or procedures for determining cost allocation among jurisdictions, can pose a major obstacle to the development of major backbone transmission projects.

#### Access to capital

Further complicating efforts to build out transmission is the cost of raising capital for investment in transmission projects. For many utilities and merchant developers that have plans to invest in transmission, managing project costs is a constant battle. A critical aspect of managing such costs is the cost of borrowing to finance what are likely to be billion-dollar investments. With world credit markets having seized up in the fourth quarter of 2008, and with financial institutions from New York to London more risk averse, in the least, the case for transmission investment has become more financially uncertain. In the short term, in the absence of investment-grade credit ratings, would-be transmission infrastructure developers should be prepared to self fund projects if they want to have any realistic chance to meet their objectives along the time frames that they proposed prior to the current market crisis.



**Joseph H Fagan**  
**Becky M Bruner**  
**Michael S Hindus**  
**Robert A James**

**joseph.fagan@pillsburylaw.com**  
**becky.bruner@pillsburylaw.com**  
**michael.hindus@pillsburylaw.com**  
**rob.james@pillsburylaw.com**

50 Fremont Street  
San Francisco  
CA 94105  
USA  
Tel: +1 415 983 1000  
Fax: +1 415 983 1200

2 Houston Center  
909 Fannin Street  
Houston  
TX 77010, USA  
Tel: +1 713 276 7600  
Fax: +1 713 276 7673

2300 N St NW  
Washington, DC 20037  
USA  
Tel: +1 202 663 8000  
Fax: +1 202 663 8007

[www.pillsburylaw.com](http://www.pillsburylaw.com)

In addition, the costs of construction have increased substantially over the past several years, and while recent turmoil in the global commodity markets have tempered increases in the costs of raw materials for energy infrastructure projects, such as iron, steel and copper, any such lull is expected to be temporary given the unrelenting global demand for greater energy supply and the infrastructure with which to deliver it.

**Conclusion**

Going forward, market participants must be prepared to address the numerous challenges facing electric infrastructure development today. While no one has a crystal ball, it is a near-certainty that the need for

greater investment in power projects will continue unabated. In order to meet this demand, the role of government will be crucial, whether in passing legislation or in enacting policies that encourage this investment, or in removing bureaucratic and market barriers that would otherwise impede necessary development. The ability of market participants to react to, and to capitalise on such policies will go a long way towards determining whether domestic and global infrastructure needs are met in the coming decades.

*\* The authors would like to thank Thomas C Orvald and Natara G Feller for their assistance in drafting and researching this introduction.*





# Electricity Regulation 2011

# Electricity Regulation 2011

Michael S Hindus, Robert A James, Joseph H Fagan and Becky M Bruner\*

Pillsbury Winthrop Shaw Pittman LLP

## 1 Policy and law

What is the government policy and legislative framework for the electricity sector?

No single government body sets government policy for the electricity sector. The federal government, which regulates wholesale markets, follows a generally pro-competitive policy. The competition reforms that transformed the US electricity sector represent the latest chapter in three decades of restructuring, deregulation, and regulatory reforms that affected industrial sectors of the economy historically subject to price regulation. Retail sales are regulated by the states. Several states have adopted choice programmes intended to introduce competition among retail suppliers of electricity. While some states have delayed or suspended retail choice plans amid concerns that deregulation may not benefit end-use consumers, retail choice is thriving in other states, such as New York and Texas.

### US Congress

The Energy Policy Act of 2005 (EPAc 2005) represents the most significant change in US energy policy since the Federal Power Act of 1935 (FPA) and the Natural Gas Act of 1938 (NGA). EPAc 2005 granted the Federal Energy Regulatory Commission (FERC) the authority to issue rules to:

- prevent market manipulation in wholesale power and gas markets, and in electric transmission and gas transportation services;
- assess civil penalties for violations of the FPA and other energy statutes;
- oversee mandatory reliability standards governing the nation's electricity grid; and
- approve the siting of transmission facilities, traditionally a matter of state or local jurisdiction, under certain circumstances.

### Federal administrative agencies

One of the top priorities of the US Department of Energy (DoE) is to protect national and economic security by promoting a diverse energy supply and the delivery of reliable, affordable and environmentally sound energy. FERC, an independent regulatory agency within the DoE, is the principal economic and policy regulator at the federal level for the electric power industry. FERC is charged with implementing, administering and enforcing most of the provisions of EPAc 2005, FPA, NGA and other statutes regulating the electric utility industry.

### States

Beginning in the 1990s, a number of states undertook measures to require or encourage vertically integrated utilities to disaggregate into separate generation, transmission or distribution entities. Also, participation in independent system operators (ISOs) or regional transmission organisations (RTOs) was encouraged at the federal level and in some states. In 2003, the Energy Information Administration (EIA, part of the DoE) reported that 23 states (concentrated in the

north-east and Great Lakes regions) and the District of Columbia had taken legislative or regulatory actions necessary to implement retail choice in the electric sector ([www.eia.doe.gov/cneaf/electricity/page/restructuring/restructure\\_elect.html](http://www.eia.doe.gov/cneaf/electricity/page/restructuring/restructure_elect.html), 'Electricity Restructuring by State'). However, some states have since slowed their efforts to promote retail choice and in 2007, Virginia decided to end its 10-year experiment with deregulation and restored full-cost of service regulation of retail sales. Following the disruption of the western wholesale power markets in 2000 and 2001, California suspended its retail access programme ([www.eia.doe.gov/cneaf/electricity/page/restructuring/california.html](http://www.eia.doe.gov/cneaf/electricity/page/restructuring/california.html)). However, pursuant to a 2009 law, effective 11 April 2010, the California Public Utilities Commission increased the limits on the allowed level of direct access within the service areas of California's major investor-owned electric utilities. The increased limits will be phased in over a four-year period and are subject to annual caps. Five other states have decided to delay further implementation bringing the total number of suspended retail access programmes to seven programmes as of 2010, one of which has been reinstated ([www.eia.doe.gov/cneaf/electricity/page/restructuring/restructure\\_elect.html](http://www.eia.doe.gov/cneaf/electricity/page/restructuring/restructure_elect.html)).

## 2 Organisation of the market

What is the organisational structure for the generation, transmission, distribution and sale of power?

According to FERC, as of its most recent data from 2007 the US electric industry is comprised of 3,273 electricity providers, including 2,009 publicly owned utilities, 883 co-operatives, 210 investor-owned utilities and nine federal utilities.

The private sector includes traditional utilities that are vertically integrated, generation-owning companies and power marketers, and transmission or distribution 'wires-only' companies. These companies may be privately owned or publicly traded. The public sector includes municipally owned utilities, public power districts, state agencies, irrigation districts and other government organisations, and at the federal level, the Tennessee Valley Authority (TVA) and federal power marketing administrations. Rural electric co-operatives, formed by residents, operate in 47 states and represent about 10 per cent of sales and revenue ([www.eia.doe.gov/cneaf/electricity/page/prim2/toc2.html](http://www.eia.doe.gov/cneaf/electricity/page/prim2/toc2.html), 'Electric Power Industry Overview 2007').

### Generation

According to the EIA, net generation of electric power fell 0.9 percent in 2008, to 4,119 million MWh as compared to 2007, mostly due to an unusually cool year and the economic slowdown ([www.eia.doe.gov/cneaf/electricity/epa/epa\\_sum.html](http://www.eia.doe.gov/cneaf/electricity/epa/epa_sum.html), Electric Power Industry 2008: Year in Review: Generation, report released 21 January 2010 (next release date January 2011)). The three primary energy sources for generating electric power in the United States are coal, natural gas, and nuclear energy, which together have consistently provided between 85 and 90 percent of total net generation during the period

1997 to 2008. Excluding conventional hydroelectric, whose share was 6.2 per cent in 2008 but declining, renewable energy sources have increased their share of total net generation for five straight years, to 3.1 per cent in 2008.

The American Public Power Association (APPA) reports that in 2008, 39.9 per cent of generation came from investor-owned utilities, 38.8 per cent from non-utility power producers, 9.9 per cent from publicly owned utilities, 6.7 per cent from federal power agencies, and the remaining 4.7 per cent from cooperatives ([www.appanet.org/files/PDFs/GenerationStatistics.pdf](http://www.appanet.org/files/PDFs/GenerationStatistics.pdf), 'Generation Statistics by Fuel and Ownership').

#### Power sales

Marketers do not generate, transmit or distribute electricity, but are classified as public utilities under the FPA because they sell electricity at wholesale. In addition to the numerous privately owned power marketers, there are four federally owned power marketing administrations that market and sell the power produced at federal hydroelectric and nuclear plants. As of June 2007, there were 438 independent power marketers, 123 power marketers affiliated with public utilities, and 46 power marketers affiliated with financial institutions, each with authorisation to sell power at wholesale in the US.

#### Transmission

The US bulk power transmission system is composed of facilities that are privately, publicly, federally or cooperatively owned, which form all or parts of three electric networks (power grids): the Eastern Interconnection, which stretches from central Canada to the Atlantic Coast (excluding Quebec), south to Florida and west to the Rockies (excluding much of Texas); the Western Interconnection, which stretches from western Canada south to Mexico and east over the Rockies to the Great Plains; and the Electric Reliability Council of Texas (ERCOT), which serves a large portion of Texas.

Historically, transmission lines owned by private-sector companies were part of a vertically integrated utility. In 1996, FERC issued Order No. 888, requiring each public utility subject to FERC's jurisdiction to:

- file an open-access transmission tariff (OATT) declaring the terms and conditions for using its transmission system; and
- 'functionally unbundle' its services.

FERC has encouraged the development of ISOs and RTOs as independent transmission providers within a region. These entities are formed by utilities that transfer operational control – but not ownership – of their transmission assets to the ISO or RTO, which is then responsible for operating the regional transmission grid and administering wholesale markets. Today, two-thirds of electricity consumers in the US are served within markets administered by seven ISOs or RTOs: the PJM Interconnection (encompassing such states as Pennsylvania, New Jersey, Maryland, Delaware, Virginia and West Virginia), the Midwest ISO, the Southwest Power Pool, the New York ISO, ISO-New England, the California ISO and ERCOT.

One of the responsibilities of ISOs and RTOs, as well as other transmission providers, is maintenance of the short-term reliability of the grid. Pursuant to EAct 2005, FERC certified the North American Electric Reliability Corporation (NERC) as the nation's Electric Reliability Organization (ERO) to develop and enforce mandatory reliability requirements to address medium- and long-term reliability concerns, subject to FERC oversight and enforcement. Today, enforcement of electric reliability standards, including the protection of critical energy infrastructure, is a major focus of the ERO and of FERC, which may impose penalties up to US\$1 million a day on transmission or generation owners and operators for violation of mandatory reliability standards.

## Regulation of electricity utilities – power generation

### 3 Authorisation to construct and operate generation facilities

What authorisations are required to construct and operate generation facilities?

The siting and construction of electric generation, transmission and distribution facilities has historically been a state and local process, although EAct 2005 altered this historic arrangement by vesting ultimate transmission siting authority with FERC in certain cases. In making siting decisions, state public utility commissions (PUCs) consider environmental, public health and economic factors. The PUCs exercise their authority in conjunction with state environmental agencies or local zoning boards. A few states have a siting board or commission that provides a single forum where an electricity utility or independent developer can obtain all necessary authorisations to construct electric facilities. Other states have not consolidated the siting process, and electric utilities or independent developers are there required to obtain the necessary permits separately from each of the relevant state and local agencies. State and local permits required for the construction of electric generation facilities include air permits and water use or discharge permits from the state environmental commission, and zoning and building permits from local commissions.

Regulated utilities are required to obtain a certificate of public convenience and necessity from the relevant PUC for the construction of generation, transmission and distribution facilities that will be subject to cost-based rate regulation. No federal certificate of public convenience or necessity is required from FERC for the siting and construction of electric generation, transmission or distribution facilities under Part II of the FPA.

However, a FERC licence must be obtained under part I of the FPA for the construction of hydroelectric facilities on navigable waters. Construction affecting federal lands may also require authorisation from agencies such as the Bureau of Land Management, the US Forest Service or the National Park Service. The US Army Corps of Engineers reviews projects affecting wetlands or navigable waters. Nuclear facilities must be licensed by the US Nuclear Regulatory Commission (NRC).

### 4 Interconnection policies

What are the policies with respect to interconnection of generation to the transmission grid?

FERC jurisdictional transmission providers are required to provide interconnection service under the terms of an open access transmission tariff (OATT). Generators have the right to request interconnection services separately from transmission services.

In response to complaints by generators that interconnection procedures were being used by some transmission providers in a discriminatory manner, FERC implemented rules to standardise agreements and procedures for generators and required FERC jurisdictional transmission providers to interconnect generators to the grid in a non-discriminatory manner. Under the standard interconnection procedures, generators are required to pay the full cost of any interconnection facilities up front (from the generator to the point of interconnection) and network transmission facilities (beyond the point of interconnection) necessary to connect the generator with the transmission grid. The generator is reimbursed for the cost of any network transmission facilities through credits for future transmission service on the grid. ISOs and RTOs, but not vertically integrated utilities, have the flexibility to propose changes to the standard interconnection agreement and procedures as well as to the procedures for recovering interconnection costs. For example, ISOs and RTOs may seek authorisation to allocate the costs of network upgrades to the generator requesting the upgrades (in exchange for granting capacity rights on the transmission system). FERC does not regulate

local distribution facilities, but has authority to regulate the rates, terms and conditions of any wholesale sales transaction using such a facility.

## 5 Alternative energy sources

Does government policy or legislation encourage power generation based on alternative energy sources such as renewable energies or combined heat and power?

Yes. Legislation passed and signed into law by the president in early 2009, the American Recovery and Reinvestment Act of 2009 (Recovery Act), contains provisions for direct spending, tax credits and loan guarantee programmes designed to promote development of renewable energy projects. The legislation extended the production tax credit (PTC) on renewable energy systems by three years, while offering expansions on and alternatives for PTCs ([www.ucsusa.org/clean\\_energy/solutions/big\\_picture\\_solutions/production-tax-credit-for.html](http://www.ucsusa.org/clean_energy/solutions/big_picture_solutions/production-tax-credit-for.html)). The wind energy PTC is in effect until 2012, while PTCs for municipal solid waste, qualified hydropower, biomass and geothermal energy projects extend until 2013. Solar facilities are eligible for a 30 per cent Investment Tax Credit, which applies through 2016. As an alternative to the PTC, a project developer may elect a grant equal to 30 per cent of the facility's tax basis, so long as the facility is depreciable and amortisable. The DoE is administering a loan guarantee programme for renewable energy projects that begin construction by 30 September 2011 ([http://lpo.energy.gov/?page\\_id=45](http://lpo.energy.gov/?page_id=45)). The DoE Office of Energy Efficiency and Renewable Energy is the focal point for several additional alternative energy programmes, including the biomass programme, the geothermal technologies programme, the solar energies technologies programme, the hydrogen, fuel cells and infrastructure technologies programme, and the wind and hydro-power technologies programme ([www.eere.energy.gov/#](http://www.eere.energy.gov/#)).

As of March 2009, 28 states plus the District of Columbia have adopted renewable portfolio standards (RPS) that require electricity providers to obtain a minimum percentage of their power from renewable energy resources by a certain date and five others have set voluntary goals for adopting renewable energy resources ([www.epa.gov/chp/state-policy/renewable\\_fs.html](http://www.epa.gov/chp/state-policy/renewable_fs.html)). Thirteen of these states include combined heat and power (CHP) or waste heat recovery as an eligible resource. More than 2,300MW of new renewable energy capacity through 2003 was attributable to RPS programmes ([www.epa.gov/chp/state-policy/renewable\\_fs.html#fn3](http://www.epa.gov/chp/state-policy/renewable_fs.html#fn3)).

## Cogeneration and small power production purchase and sale requirements

EPA Act 2005 amended the mandatory purchase and sale requirements of PURPA. Historically, electric utilities were obligated to purchase or sell electric energy from or to a facility that is an existing qualifying cogeneration or small power production facility (QF). However, if the QF is selling in a market that meets certain criteria established by FERC, that purchase obligation may be terminated. In 2006 FERC issued Order No. 688, which permits the termination of the requirement that an electric utility enter into new contracts to sell energy to or purchase energy from a QF after the electric utility files for such relief from FERC, and FERC makes appropriate findings. Several utilities have successfully pursued relief under Order No. 688. These changes do not affect existing or pending contracts or obligations.

## 6 Climate change

What impact will government policy on climate change have on the types of resources that are used to meet electricity demand and on the cost and amount of power that is consumed?

Federal and state climate change policies promoting carbon-free energy sources are more likely to have an impact on the types of resource used to meet US electricity demand in the medium- or long-term time frame than in the short term. The US electric

industry's reliance on fossil fuels (particularly coal) to meet rising energy demands is driven primarily by cost considerations: coal is a cheap and plentiful domestic fuel source, and coal-fired power plants are a relatively quickly built and inexpensive means by which utilities can meet the electricity demands of their customers. Although recent federal and state legislative initiatives have provided down-payments toward the creation of cost-competitive renewable energy technologies, the large-scale deployment of these technologies is still hampered by variability of resources such as wind, the need for additional backbone transmission capacity between regions, and the lack of storage capacity. Other proposed state and federal legislation (eg, cap-and-trade schemes) and foreign policy initiatives (eg, the Copenhagen emissions treaty) could impose additional costs on electricity generators using carbon-rich fossil fuels. New and existing coal-fired plants may be incentivised or required to have carbon capture and sequestration (CCS) capabilities. Federal and state initiatives to encourage carbon-free energy resources could incentivise other alternatives to coal – particularly new liquefied natural gas (LNG) and nuclear. Coal and other fossil fuels are nonetheless likely to represent the major share of resources for electric energy in the US for the next few decades.

These legislative proposals are, however, likely to impose greater costs on the energy that is consumed. State or federal governments could subsidise renewable energy and carbon mitigation initiatives by surcharges on electricity generation or consumption. Compliance costs incurred by utilities arising from domestic or international cap-and-trade legislation, EPA regulation of greenhouse gasses as airborne pollutants under the Clean Air Act, or state regulation of vehicular carbon emissions would be passed on through every transaction involving electricity. Moreover, these increased costs to utilities and consumers would not likely result in significant demand-reduction; even the most optimistic experts conclude that conservation efforts could realise at best only a marginal reduction of the rate of increase in US demand for electricity.

## 7 Government policy

Does government policy encourage development of new nuclear power plants? How?

Yes. The US DoE Loan Guarantee Program has promoted development of the nuclear power industry through total available loan guarantees of US\$18.5 billion for the construction of new nuclear power plants in the US. These loan guarantees help developers of new nuclear plants in the US to obtain favorable financing terms, which is of critical importance when constructing plants with a projected price tag in the range of US\$7 to US\$10 billion per unit. Indeed, many companies that are considering building new plants have publicly stated that, absent a federal loan guarantee, they will not be able to finance and build their proposed projects. Seventeen companies building 21 nuclear units have applied for the guarantees. To date, a conditional loan guarantee of US\$8.33 billion has been granted to the developers of two nuclear units in Georgia, and DoE has targeted two additional projects (in Maryland and Texas) for loan guarantees covering the remaining US\$10.17 billion. However, the Maryland loan guarantee is in doubt, because in October 2010, the sponsoring company rejected the terms of the loan proposed by the DoE.

DoE's Loan Guarantee Program also has earmarked an additional US\$4 billion for the construction of new uranium enrichment facilities in the US. Access to additional supplies of enriched uranium fuel will be critical to support the development of new nuclear plants in the US. The DoE has granted a conditional loan guarantee of US\$2 billion for the construction of a uranium enrichment plant in Idaho, and is considering the loan guarantee application of the United States Enrichment Corporation, which is planning to construct a new uranium enrichment plant in Ohio.

In addition, DoE's Nuclear Power 2010 program has helped to jump-start the proposed construction of new nuclear plants, by



co-funding with the nuclear industry efforts to evaluate and bring new technologies to market. This includes utilising the new licensing process established by the Nuclear Regulatory Commission (NRC) that is intended to streamline NRC approval of such projects. DoE also has put in place a Generation IV Nuclear Energy Systems initiative, which aims to develop new plant designs that minimise waste and are safer and more proliferation-resistant than today's nuclear plant designs.

Finally, EPAct 2005 has further encouraged the construction of new nuclear plants by establishing a production tax credit. Under that plan, operators of the first 6,000MW of capacity from new nuclear power plants that are placed in service before 2021 will receive a production tax credit of 1.8 cents per kWh during the first eight years of the plant's operation.

---

## Regulation of electricity utilities – transmission

### 8 Authorisations to construct and operate transmission networks

What authorisations are required to construct and operate transmission networks?

#### Construction

Construction of transmission facilities is primarily a state-regulated function, but federal authorities have jurisdiction over siting on federal lands and multi-state projects may require the authorisation of several states. Historically, this fragmented system for siting new power lines, in addition to other factors such as regulatory uncertainty on the state and federal levels associated with transmission cost recovery, has been a significant barrier to the development of new transmission in the US. The EPAct 2005 provides tools to facilitate new construction and improvements to the existing transmission infrastructure.

EPAct 2005 directed the DoE to identify areas in which transmission capacity constraints or congestion adversely affects consumers (national interest electric transmission corridors) and gave FERC supplemental permitting authority to ensure timely construction of transmission facilities to remedy transmission congestion in those corridors. The DoE has designated two such corridors, the Mid-Atlantic Area National Interest Electric Transmission Corridor and the Southwest Area National Interest Electric Transmission Corridor (<http://nietc.anl.gov/nationalcorridor/index.cfm>). Under authority provided by EPAct 2005, FERC may issue federal permits to construct or modify electric transmission facilities if it finds that states are holding up transmission projects in these corridors.

EPAct 2005 also provides a mechanism for the private use of the eminent domain power of the US government, where necessary, to obtain property for transmission infrastructure projects. In addition, EPAct 2005 requires that the federal government identify rights of way across federal lands that can be made available for siting electric transmission.

#### Operation

FERC issued a series of orders beginning with Order No. 890, which were intended to eliminate the broad discretion that transmission providers had in calculating available transfer capacity (ATC), increasing non-discriminatory access to the grid and ensuring that customers are treated fairly in seeking alternative power supplies. Since Order No. 890-A, transmission providers have implemented new service options for long-term firm point-to-point customers and adopted modifications to other services. Instead of denying a long-term request for point-to-point service because as little as one hour of service is unavailable in the course of a year, transmission providers are now required to consider their ability to offer a modified form of planning redispatch or a new conditional firm option to accommodate the request. This increases opportunities to utilise transmission efficiently by eliminating artificial barriers to use of the grid. This standardisation reduces the potential for undue discrimination, increases transparency, and reduces confusion in the industry that resulted from the prior lack of consistency.

Also, FERC regulations require the posting of ATC values associated with a particular path, not available flowgate capacity values associated with a flowgate. With respect to energy and generation imbalance charges, a transmission provider must post the availability of generator imbalance service and seek imbalance service from other sources in a manner that is reasonable in light of the transmission provider's operations and the needs of its imbalance customers. FERC also limited rollover rights to contracts with a minimum term of five years. In Order No. 890-B, FERC reiterated that a power purchase agreement must meet all of the requirements for designation as a network resource in order to be designated by the network customer or transmission provider's merchant functions.

---

### 9 Eligibility to obtain transmission services

Who is eligible to obtain transmission services and what requirements must be met to obtain access?

See question 10.

---

### 10 Government incentives

Are there any government incentives to encourage expansion of the transmission grid?

Pursuant to EPAct 2005, FERC has established incentive-based rate treatments to encourage investment in and expansion of the US' aging transmission infrastructure. FERC Order No. 679, issued in 2007, includes a number of key provisions to promote transmission investment, including:

- incentive rates of return on equity for new investment by public utilities (both traditional utilities and stand-alone transmission companies);
- a higher rate of return on equity for utilities that join or continue to be members of transmission organisations (for example, RTOs and ISOs); and
- various advantageous accounting methods, including:
  - full recovery of prudently incurred construction work in progress, pre-operation costs and costs of abandoned facilities;
  - use of hypothetical capital structures;
  - accumulated deferred income taxes for stand-alone transmission companies;
  - adjustments to book value for stand-alone transmission company sales or purchases;
  - accelerated depreciation; and
  - deferred cost recovery for utilities with retail rate freezes.

In Order No. 679 and Order No. 679-A, FERC extended incentive rate treatments to all utilities joining ISOs or RTOs, irrespective of the date they join. However, this incentive does not apply to existing transmission rate base that has already been built, as its purpose is to attract new investment in transmission.

---

### 11 Rates and terms for transmission services

Who determines the rates and terms for the provision of transmission services and what legal standard does that entity apply?

FERC has jurisdiction over unbundled transmission services (including transmission services provided over low-voltage facilities) provided by public utilities to wholesale customers or to retail customers with direct access. The states have jurisdiction over bundled retail service (ie, a combined generation and delivery product sold to retail customers) where direct access is not available. Court decisions and the interconnectivity of the transmission grid in the continental US have led to an expansive view of what constitutes transmission service in interstate commerce in all areas of the US except Alaska, Hawaii and ERCOT. The FPA, however, reserves to the states jurisdiction over the local distribution of electricity.

FERC jurisdictional utilities offering transmission services must do so under FERC-approved tariffs. Order No. 888 required jurisdictional electric utilities to submit pro forma OATTs that functionally unbundled transmission operations and services, and set forth rates for transmission and ancillary services. In 2007, FERC issued Order No. 890, which modified the pro forma OATT to better remedy undue discrimination by, among other things, providing greater transparency and consistency in the calculation of available transmission capacity, and requiring coordinated open transmission planning between regions.

Transmission providers are also required to maintain an open-access, same-time information system (OASIS) to publish information with respect to its transmission system, including services, rates, and available transmission capacity as well as business rules, practices, and standards that relate to transmission services provided under the pro forma OATT.

Finally, the FPA empowers FERC to review rates and terms of transmission services to ensure that they are just and reasonable and not unduly discriminatory or preferential. Generally, tariffs and contracts for transmission services must be filed with FERC before service commences to allow an opportunity for Commission review, as well as public notice and comment. Because transmission services are a natural monopoly, Order No. 888 envisions that FERC will determine whether a particular tariff is just and reasonable via a traditional cost-of-service ratemaking inquiry that balances ratepayer and the utilities' financial interests to realise a rate within the zone of reasonableness. Tariffs can be challenged for being unjust, unreasonable, unlawful, or discriminatory.

EPAAct 2005 authorises FERC to require transmission providers not subject to its jurisdiction to provide open access to their transmission system at terms and conditions comparable to those the unregulated entity provides to itself. An unregulated entity may be exempt from this requirement if it sells less than 4 million MWh of electricity annually or if it does not own or operate the transmission facilities needed to operate an interconnected system. However, many of these regulated entities already provide open access based on reciprocity agreements with transmission providers.

---

#### 12 Entities responsible for assuring reliability

Which entities are responsible for assuring reliability of the transmission grid and what are their powers and responsibilities?

Since 1968, NERC has operated as the primary entity responsible for assuring the reliability of the grid. NERC develops reliability standards through an American National Standards Institute accredited process, and it monitors, assesses and enforces its members' compliance with such standards through a voluntary, self-regulatory process. EPAAct 2005 added section 215 to the FPA, which provides for the creation of an ERO to be the organisation responsible for establishing and enforcing reliability standards for the bulk power system in North America. In 2006, FERC certified NERC as the ERO. The ERO oversees an enforcement programme that includes compliance audit and reliability readiness review programmes, as well as a -compliance-monitoring programme.

In 2007, FERC strengthened the reliability regime by approving 83 mandatory reliability standards for the bulk power system proposed by the ERO, approving delegation agreements between the ERO and eight regional entities and creating a new internal Office of Electric Reliability. The mandatory reliability standards apply to users, owners, and operators of the bulk power system designated by NERC. Both monetary and non-monetary penalties may be imposed for violations of these standards.

---

#### Regulation of electricity utilities – distribution

---

##### 13 Authorisation to construct and operate distribution networks

What authorisations are required to construct and operate distribution networks?

Similar to generation, distribution is regulated primarily at the state level.

---

##### 14 Access to the distribution grid

Who is eligible to obtain access to the distribution grid and what requirements must be met to obtain access?

Specific procedures for connection to the distribution grid vary from state to state. However, state laws generally provide that distributors cannot deny service that is in the public interest.

---

##### 15 Rates and terms for distribution services

Who determines the rates or terms for the provision of distribution services and what legal standard does that entity apply?

FERC has jurisdiction over delivery of electric energy in interstate commerce by public utilities, regardless of the voltage level of the delivery facilities. Section 201 of the FPA reserves regulatory authority over all facilities used in the local distribution of electricity to the state utility commissions, however. FERC in Order No. 888 promulgated a seven-factor functional test for the case-by-case determination of the jurisdictional separation between FERC-jurisdictional interstate transmission service (including service over low-voltage distribution lines) and state-jurisdictional local distribution service, and FERC generally defers to the states' application of this test.

The functional test looks at; the proximity of the facilities to retail customers; whether the facilities are radial in character; whether power flows into or out of the facilities; whether power entering the facilities is transported to another market; whether power is consumed in a defined area; whether the facilities include meters to measure power flow into the facilities; and the voltage of the power flowing through the facilities.

FERC determines the rates, terms and conditions of transmission service in interstate commerce (including service over low-voltage facilities) under the FPA's just and reasonable standard based on cost-of-service ratemaking principles. Where retail customers buy electricity from a wholesale provider, and the electricity is then delivered over distribution facilities by the load serving entity, the state determines the rates, terms and conditions of such distribution service. Because distribution services are considered to be a natural monopoly, state public utility commissions generally review tariffs for distribution services proposed by the utilities via a traditional cost-of-service ratemaking inquiry. State utility commissions generally approve the tariffs submitted by utilities if they are just and reasonable. The tariffs offered by various utilities will typically vary, even within a state.

---

#### Regulation of electricity utilities – sales of power

---

##### 16 Approval to sell power

What authorisations are required for the sale of power to customers and which authorities grant such approvals?

FERC has jurisdiction over sales of power at wholesale in interstate commerce other than sales by federal or state governmental bodies and rural cooperatives that are indebted to the Rural Utilities Service (RUS) or cooperatives that sell less than 4 million MWh of electricity per year. Retail sales of electricity are regulated at the state level, with variation from state to state.

**17 Power sales tariffs**

Is there any tariff or other regulation regarding power sales?

Tariffs and contracts pursuant to which public utilities sell power generally must be filed with FERC (wholesale sales) or the applicable state PUC (retail sales) before service commences to allow the applicable regulatory entity an opportunity for review (and for public notice and comment). Under the FPA, FERC has jurisdiction over wholesale rate-making and is charged with assuring the rates, terms and conditions pursuant to which public utilities offer wholesale power sales are ‘just and reasonable’.

FERC permits wholesale sales of power at market-based rates if the seller demonstrates a lack of market power by passing a series of horizontal and vertical market screens. FERC has commenced investigations to determine whether utilities should retain their authority to sell power at market-based rates after finding that certain utilities did not pass at least one of the screening tests. In response, several utilities voluntarily agreed to implement cost-based rate caps in the areas where FERC found a presumption of market power and revoked the market-based rate authority of a utility.

Sellers of wholesale power that have applied for and received FERC approval to sell power pursuant to a market-based rate tariff can thereafter enter into new power sales contracts and transactions without filing the contracts prior to commencing service. Instead, such sellers file quarterly reports of their power sales contracts and transactions under their market-based rate tariff. In the absence of a showing of a lack of market power, FERC regulates the rates for wholesale sales under cost-of-service rate-making principles, and each new contract must be filed with FERC before the commencement of service.

Unlike the situation with respect to transmission tariffs, FERC does not generally dictate specific non-price terms and conditions in wholesale power sales contracts but does dictate specific non-price terms and conditions in the market-based rate tariff. The regulatory structure allows complaints to be filed challenging contracts or reported power sales transactions as being unjust, unreasonable, unlawful or discriminatory.

Retail sales are regulated at the state level, with significant variation from state to state. In the absence of a competitive retail market, retail rates are typically established based on cost of service.

**18 Rates for wholesale of power**

Who determines the rates for sales of wholesale power and what standard does that entity apply?

Section 201 of the FPA grants FERC exclusive regulatory authority over the wholesale of electricity in interstate commerce by jurisdictional entities. The state utility commissions retain regulatory authority over wholesale sales of electricity by purely intrastate wholesale sales (in practice this class is limited to wholesale sales in Alaska, Hawaii and ERCOT), as well as wholesale sales by non-jurisdictional entities such as rural electric cooperatives, municipal utilities, and state- or federally created utilities.

The FPA grants FERC authority over all jurisdictional wholesale sales of electricity to ensure that wholesale rates are just, reasonable and not unduly discriminatory or preferential. Although traditionally FERC had employed a cost-of-service ratemaking inquiry when reviewing wholesale rates to realise this statutory mandate, FERC has also allowed the market to determine wholesale power rates where it has found that the seller and its affiliates lack or have mitigated vertical or horizontal market power, and have adequately restricted affiliate transactions with captive customers. Once FERC approves a jurisdictional entity’s generic market tariff, the jurisdictional entity is free to negotiate with other parties in the marketplace over the specific rate charged for the wholesale sale without having to seek FERC approval of the agreement prior to commencing service.

**19 Public service obligations**

To what extent are electricity utilities that sell power subject to public service obligations?

At retail level, electric utilities have traditionally operated under an obligation to serve. In exchange for what is generally an exclusive service territory and an opportunity to recover prudently incurred expenses through cost-based rates, utilities are obliged to provide service to all customers in that service territory, as well as to plan adequately for the future needs of customers. In states that adopt retail competition, certain electric utilities may still retain an obligation to provide service to customers who do not select a competitive supplier.

FERC has recognised that wholesale electricity sales are generally governed by private contract, rather than by regulatory order or an express obligation to serve.

**Regulatory authorities****20 Policy setting**

Which authorities determine regulatory policy with respect to the electricity sector?

A number of governmental agencies are involved in different aspects of the regulatory policies governing electricity. At the federal level, Congress ultimately determines the direction of national energy policy through legislation, but it delegates broad authority to implement legislative mandates to FERC and other administrative agencies. At the state level, electric utilities are regulated by PUCs.

**21 Scope of authority**

What is the scope of each regulator’s authority?

FERC has authority to regulate sales of wholesale power and transmission in interstate commerce and to grant and administer licenses for hydroelectric plants on navigable waters. Under the Public Utility Holding Company Act of 2005 (PUHCA 2005), FERC also has authority to grant exempt wholesale generator (EWG) status and foreign utility company (FUCO) status. FERC exercises authority under PURPA with respect to qualifying small power production facilities and cogeneration facilities (QFs).

FERC has jurisdiction over the disposition of assets subject to its jurisdiction, including through mergers, asset divestitures, corporate reorganisations and other transactions in which there is a change in the control of jurisdictional assets. FERC also has oversight authority with respect to the issuance of securities (except if regulated by a state) and interlocks among the officers and directors of public utilities and financial institutions, or the utility’s suppliers of electrical equipment. Public utilities under FERC’s jurisdiction are subject to various requirements with respect to accounting and record retention and are required to satisfy various reporting requirements.

Under PUHCA 2005, FERC has increased oversight over, and access to, the books and records of public utility holding companies and their subsidiaries and affiliates to the extent that such books and records pertain to FERC jurisdictional rates or charges. Any service company in a holding company system providing non-power goods and services to an affiliated FERC jurisdictional public utility or natural gas company must file annual reports disclosing detailed information about their businesses. Public utility holding companies may seek exemptions and waivers from these regulatory requirements. However, an automatic exemption from all of the requirements is available to companies that are holding companies solely with respect to ownership of EWGs, QFs or FUCOs. In addition, single-state holding companies are entitled to a waiver from some, but not all, of the requirements but must seek the waiver from FERC.

The NRC licenses the construction and operation of nuclear power plants and other nuclear facilities to ensure the protection of public health and safety. The Atomic Energy Act (AEA) governs the



use of nuclear materials by both military and civilian entities, requires that all nuclear facilities be licensed, and establishes compensation for, and limits damages arising from, nuclear accidents. The NRC has developed detailed regulations and guidelines concerning all aspects of the operations of a nuclear power plant.

State PUCs regulate terms and rates for retail sales and delivery of electricity. PUCs are charged with ensuring that the public has access to safe, reliable utility service at reasonable rates and, thus, also have authority over at least some aspects of the organisation and finances of public utilities. Many PUCs also have authority to make siting decisions for transmission lines and generation facilities. However, in other states, siting decisions are delegated to other agencies.

Many local governments operate municipal utilities to provide electric service to their local communities. While the majority of municipal utilities serve smaller communities, several large cities, for example, Los Angeles, Sacramento, San Antonio, Seattle, Jacksonville and Orlando, operate publicly owned electric utilities. City councils govern nearly three-fifths of municipal utilities, while boards of elected or appointed officials govern the rest. In a few states, PUCs regulate municipal utilities.

The RUS promotes electrification of rural America by providing financing to local cooperatives. Electric cooperatives are governed by their member customers through an elected board of directors. Cooperative boards set rates as well as determining the types of services available and other policies. PUCs regulate some aspects of cooperatives' activities in approximately 20 of the 47 states in which cooperatives operate. Rural cooperatives with loans outstanding from the RUS are also obliged to comply with various loan covenants and regulations that affect their operations. The TVA, formed in 1933 as a wholly owned corporation of the US government, generates and transmits power in seven south-eastern states. TVA is governed by a three-member board, appointed by the president and confirmed by the Senate to serve staggered nine-year terms.

The four federal power marketing administrations (PMAs) operate as agencies of the DoE and sell approximately 6.6 per cent of the nation's electricity in 30 states (they are the Bonneville, Southeastern, Southwestern and Western Area Power Administrations – the Alaska Power Administration was privatised in 1998). The PMAs do not own or operate generating facilities but market the power produced by federally owned hydro and nuclear facilities. Administrators of the PMAs have authority to set rates and must certify that rates are 'consistent with applicable law' and 'the lowest possible rate to customers consistent with sound business principles'.

## 22 Establishment of regulators

How is each regulator established and to what extent is it considered to be independent of the regulated business and of governmental officials?

FERC and NRC are each authorised to have five commissioners. The president nominates, and Congress confirms, commissioners for FERC and the NRC for staggered five-year terms. The president also appoints one commissioner to serve as chair of each commission. No more than three commissioners may belong to a single political party. Furthermore, FERC and NRC decisions are not subject to review by the president, congress, the DoE or other agencies.

State PUCs vary in size, but generally have between three and seven commissioners. It is common to limit the number of commissioners who may be from a single political party. In most states, the governor appoints commissioners, with approval by the upper house of the state legislature, for staggered five or six-year terms. In some states, commissioners are elected. The governor typically designates one commissioner to serve as chair of the commission, although in some states the commissioners select the chair. State commissioners generally are subject to restrictions similar to those of their federal counterparts with respect to employment, investments and ex parte communications.

## 23 Challenge and appeal of decisions

To what extent can decisions of the regulator be challenged or appealed, and to whom? What are the grounds and procedures for appeal?

Decisions by FERC can be challenged on both substantive and procedural grounds. Within 30 days of a final decision or order by FERC, a party to the proceeding (either the applicant or an intervenor) may file a request for rehearing with FERC. Within 60 days of issuance of the decision on rehearing, an aggrieved party may request a review of the FERC decisions by a US Court of Appeals. The Court of Appeals generally will not consider any objections not raised in the request for rehearing to FERC. US Supreme Court review is possible upon a showing of compelling cause (for example, a conflict between decisions of two or more circuits of the US Court of Appeals). PUC decisions can also be challenged through judicial appeals in state courts, or if the decision violates federal law, a cause of action could be brought in federal court (subject to various limitations).

## Acquisition and merger control – competition

### 24 Responsible bodies

Which bodies have the authority to approve or block mergers or other changes in control over businesses in the sector or acquisition of utility assets?

FERC approval is required prior to the disposition of any facilities subject to its jurisdiction under the FPA of a value in excess of US\$10 million, as well as direct or indirect mergers or consolidations of public utility facilities with those of any other person regardless of the value of the facilities. Facilities under FERC's jurisdiction under section 203 of the FPA include facilities used for transmission or sale of electric power in interstate commerce (including 'paper facilities' such as contracts for wholesale power sales) as well as generation assets used for wholesale sales. FERC review is required if there is a change in 'control' of jurisdictional facilities. In general, FERC will presume that a transfer of less than 10 per cent of a public utility's holdings is not a transfer of control.

Any holding company that owns an entity selling power at wholesale or transmitting electric energy must obtain FERC authorisation to acquire securities valued in excess of US\$10 million in any entity that sells at wholesale or transmits electric energy or to otherwise merge with any such entity with a value in excess of US\$10 million. In addition, the transfer of specific assets or licences may necessitate additional reviews. For example, the transfer of a nuclear generating facility requires NRC approval.

FERC has established blanket authorisations for a variety of transactions. For example, transactions in which a holding company that includes a transmitting utility or an electric utility seeks to acquire or take any security of a transmitting utility or company that owns, operates or controls only facilities used solely for transmission in intrastate commerce or sales of electric energy in intrastate commerce, or facilities used solely for local distribution or sales of electricity at retail, are automatically authorised. Transactions involving internal corporate reorganisations that do not present cross-subsidisation issues or involve a traditional public utility with captive customers or that owns transmission assets are also automatically authorised. Acquisitions by holding companies of non-voting securities do not require prior FERC authorisation. Acquisitions by holding companies of voting securities do not require prior FERC authorisation if, after the acquisition, the acquiring holding company will directly or indirectly own less than 10 per cent of the outstanding voting securities. Moreover, acquisitions by holding companies of foreign utility companies do not require FERC authorisation except where the holding company or its affiliates has captive customers in the US, in which case the holding company must make certain representations that the transaction will not adversely affect such captive customers.

The Federal Trade Commission (FTC) and the Antitrust Division of the Department of Justice (DoJ) (collectively, the antitrust agencies) are the primary agencies with authority to enforce US antitrust and fair trade practice laws. The antitrust agencies can review the antitrust implications of proposed mergers and certain acquisitions of assets or securities in the electricity sector under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (HSR Act). Their authority is not specific to any one industry, but they, in addition to FERC and the states, may challenge in court anti-competitive practices in the electricity sector. The antitrust agencies' authority comes from laws including the Hart-Scott-Rodino (HSR) Act, the Federal Trade Commission Act (FTCA), the Clayton Act and the Sherman Act.

Finally, individual state regulatory bodies often must approve an acquisition or divestiture of utility companies or assets in that state, pursuant to state law. The procedures and standards for that review vary from one state to another.

## 25 Review of transfers of control

What criteria and procedures apply with respect to the review of mergers, acquisitions and other transfers of control? How long does it typically take to obtain a decision approving or blocking the transaction?

In considering an application to merge, acquire or transfer control of assets under section 203 of the FPA, FERC must determine whether the proposed transaction is in the public interest. As provided in FERC's merger policy statement in Order No. 592, such determination requires an evaluation of the proposal's effect on competition, rates and regulation. FERC must also consider whether proposed acquisitions will result in cross-subsidisation of any non-utility company in the same holding company system or in any pledge of utility assets for the benefit of any company in the same holding company system. FERC may approve an acquisition resulting in such cross-subsidisation or pledge of utility assets only if FERC determines that such cross-subsidisation or pledge will be consistent with the public interest.

With respect to assessing a proposed transaction's impact on competition under section 203 of the FPA, FERC's merger policy statement generally requires that applicants provide it with a competitive screen analysis (horizontal or vertical, as appropriate) showing the effect of the proposed disposition on relevant products in relevant geographical markets. The competitive screen analysis must:

- identify the relevant products (such as economic capacity and available economic capacity) and the geographical markets in which the competitive effects of the acquisition can be analysed;
- determine the market shares of all participating firms and the degree of concentration in the market, both before and after the proposed acquisition; and
- identify the market characteristics that will influence the ability of the combining entities to adversely affect competition, such as barriers to entry into the relevant market by other firms.

Market power is measured in part using the Herfindahl-Hirschman Index (HHI) measure of market concentration. However, note that the new Horizontal Merger Guidelines released 19 August 2010 by the DoJ and FTC reflect the measure's declining role in merger analysis. The revised guidelines raise the HHI thresholds for determining market concentration, making it less likely for a particular market to be deemed "moderately concentrated" or "highly concentrated" based on HHI alone. Since FERC's Appendix A horizontal electric utility merger analysis closely tracks the previous DoJ/FTC guidelines, some expect FERC's merger analysis to be similarly revised.

FERC currently evaluates both the magnitude of increases in market power and overall post-transaction concentrations of market power to identify those transactions that are likely to have an adverse impact on competition. Applicants, however, are allowed to identify in their analysis other factors that may help to negate the presumption, such as benefits that the proposed acquisition will bring.

FERC will provide expedited consideration of completed applications for approval of: transactions that are not contested, do not involve mergers and are consistent with FERC precedent, as well as uncontested transactions involving a disposition of only transmission facilities under the functional control of a FERC-approved RTO or ISO; transactions that do not require a competitive screen analysis; and internal corporate reorganisations that do not present cross-subsidisation issues. For transactions that do not qualify for such expedited action, FERC is required to act within 180 days after the filing of an application, unless FERC determines there is good cause for requiring additional time, in which case the time for action may be extended up to 180 days. For example, FERC might extend the time frame for action if it finds that an evidentiary hearing is needed to determine whether the transaction is in the public interest.

The antitrust agencies may review the antitrust implications of mergers and certain acquisitions of assets or securities before those transactions are consummated under the HSR Act. The FTC promulgated a set of detailed rules which govern the pre-merger notification that must be filed in connection with such a transaction. A transaction subject to the HSR Act may not close prior to the expiration of the applicable waiting period, which is initially 30 days. If the antitrust agency decides to open a second-phase investigation, the waiting period will be extended until the 30th day following substantial compliance with a second request. If the reviewing antitrust agency determines that the transaction may harm competition in a relevant market, it may seek a preliminary injunction in a federal court which would bar the consummation of the merger until the court (in a DoJ action) or the FTC (in an FTC action) has an opportunity to decide whether to seek a permanent injunction following a full trial. Such a preliminary injunction does not issue automatically; in deciding whether to preliminarily enjoin a merger, the courts give heavy consideration to whether the antitrust agency will eventually be able to prove its case at trial.

If the reviewing antitrust agency determines that the transaction may harm competition in a relevant market, such issues must be resolved before the transaction can proceed. In the electric sector, FERC (not the antitrust agencies) generally takes the lead in addressing any anti-competitive issues presented by a proposed transaction. Under the HSR Act, however, merging entities in such a situation often enter into a consent order with an antitrust agency under which the acquiring company agrees to divest a portion of its existing assets or of the assets it will be acquiring.

Finally, individual state regulatory bodies often must approve an acquisition or divestiture of utility companies or assets in that state, pursuant to state law. The procedures and standards for that review vary from one state to another.

## 26 Prevention and prosecution of anti-competitive practices

Which authorities have the power to prevent or prosecute anti-competitive or manipulative practices in the electricity sector?

The federal agencies that are primarily concerned with anti-competitive practices in the wholesale electricity sector are FTC, DoJ, FERC and the Commodity Futures Trading Commission (CFTC). State utility commissions and attorneys general generally, but not exclusively, focus on such practices in the retail electric sector.

## 27 Determination of anti-competitive conduct

What substantive standards are applied to determine whether conduct is anti-competitive or manipulative?

FERC enforces compliance with tariffs or contracts in an effort to assure service is 'non-discriminatory' and charges are 'just and reasonable'. EPCA 2005 amended the FPA to prohibit buyers or sellers of interstate wholesale electric energy or transmission services from knowingly providing a federal agency with false information or from using any manipulative or deceptive device or contrivance in

violation of FERC regulations. Further, a seller of electric products and services applying for market-based rate authority must show it does not possess unmitigated market power in the affected markets.

FERC and the Commodity Futures Trading Commission (CFTC) (which has enforcement authority under the Commodity Exchange Act) have coordinated their efforts to combat manipulation attempts in the energy market. This coordination was recently seen in 2007, where FERC and the CFTC separately brought cases against two natural gas distributors.

The FTC has concurrent authority, pursuant to the FTCA, to enjoin 'unfair methods of competition.' The FTC's authority extends to acquisitions that tend to substantially lessen competition, as well as to price discrimination and other anti-competitive actions. The FTC also has authority to directly protect consumers from any 'unfair or deceptive' practice, defined as an act 'that causes or is likely to cause substantial injury to consumers that is not reasonably avoidable by consumers themselves and not outweighed by countervailing benefits to consumers and to competition.'

The FTC and the DoJ have concurrent power to prosecute violations of the other federal antitrust statutes. States and private parties may also bring actions under federal and state antitrust laws.

Section 1 of the Sherman Act prohibits 'agreements, conspiracies or trusts in restraint of trade'. Under the Sherman Act, some agreements (such as agreements of horizontal price-fixing or territorial division) are determined to be per se illegal because the conduct of the agreement is overwhelmingly considered to be harmful. Other agreements that might be harmful but not necessarily are analysed under the rule of reason, requiring the plaintiff to prove that the -agreement caused economic harm. Section 2 of the Sherman Act prohibits monopolies, specifically targeting anti-competitive conduct that creates or maintains market domination. The Clayton Act bars certain types of price discrimination and tying arrangements when they lessen competition.

## 28 Preclusion and remedy of anti-competitive practices

What authority does the regulator (or regulators) have to preclude or remedy anti-competitive or manipulative practices?

If a proposed tariff or contract is found by FERC to be unjust and unreasonable, FERC will order mitigating revisions. FERC may require the sellers to refund the difference between the rates collected and the rates FERC determines are just and reasonable, beginning with the date the investigation was initiated. In order for a seller to be eligible to sell wholesale at market-based rates (instead of at cost-based rates), it must demonstrate to FERC that it and its affiliates lack (or have mitigated) market power. FERC can refuse to grant market-based rate (MBR) authority to an applicant that fails to show it does not possess market power. At any point, FERC has the authority to revoke market-based rate authority upon a determination that the seller possesses market power. In addition, FERC maintains the ability to revoke prior grants of MBR authority if the company's behaviour involves fraud, deception or misrepresentation.

Once initially granted MBR authority, sellers are required to take additional measures in order to maintain the market-based rate authority. For example, sellers of more than 500MW of generation in any region of the country must file updates every three years in order to demonstrate its continued lack of market power. Also, such a electrical provider must notify FERC within 30 days of any significant change that might affect its qualification for market-based rates. Further, FERC has enacted market behaviour rules in order to govern sellers' conduct in the wholesale market. These rules address unit operations, communications, price reporting and record retention.

On an ongoing basis, FERC has authority under section 206 of the FPA to regulate markets and protect them against anticompetitive activity. Section 206 grants FERC authority to initiate an investigation, upon its own motion or third-party complaint, regarding

whether any rate charged by a utility for any transmission or sale is 'unjust, unreasonable, unduly discriminatory or preferential'.

EPAAct 2005 amended the FPA to allow for increases in the maximum penalty amounts for violations of the FPA. FERC is now able to assess civil penalties and fines of up to US\$1 million or imprisonment for not more than five years, or both, for wilful and knowing violations, through acts or omissions, of any section of the FPA. Also, EPAAct 2005 provides for civil penalties of up to US\$1 million per violation per day to be assessed after notice and the opportunity for a public hearing. While FERC has used its penalty authority sparingly in the past, there are indications that, pursuant to its expanded authority, FERC will act more forcefully to demonstrate its authority with more enforcement actions. In 2007, FERC moved to charge two entities with violations of the FPA, assessing penalties in the amount of US\$297.5 million.

The FTCA authorises the FTC to issue 'cease and desist' orders requiring electric utilities to refrain from prohibited unfair trade practices and may assess civil penalties for violations, up to US\$11,000 per violation per day. Violations of sections 1 and 2 of the Sherman Act may result in fines up to US\$100 million for corporations, or by imprisonment of up to 10 years, or both. In addition, under the antitrust acts, private parties are able to bring enforcement actions to address unfair trade practices in the electric sector, including tying arrangements, price squeezes and denial of access to essential facilities.

## International

### 29 Acquisitions by foreign companies

Are there any special requirements or limitations on acquisitions of interests in the electricity sector by foreign companies?

Several current or former US utilities are or have been owned by foreign parties including National Grid USA (owned by UK's National Grid), New York State Electricity and Gas (owned by the Spanish utility, Iberdrola), and LG&E (owned by Germany's E.ON but sold to a US company in September, 2010). (formerly owned by Scottish Power). However, new investors should be mindful of current US regulatory and political attitudes toward foreign investment in the energy sector.

The Exon-Florio amendment to the Defense Production Act authorises the president of the US to block a transaction if foreign persons gaining control of a US business that threatened national security. The recently enacted Foreign Investment and National Security Act of 2007 (FINSA) confirms the broad range of energy and infrastructure transactions that may be covered, and intensifies the screening for certain transactions.

Exon-Florio is administered by the Committee on Foreign Investment in the US (CFIUS), an inter-agency committee chaired by the secretary of the Treasury and including the attorney general and secretaries of homeland security, commerce, defence, state and energy. CFIUS is responsible for reviewing proposed foreign investment transactions and making recommendations to the president.

FINSA confirms that Exon-Florio applies to acquisitions of 'critical infrastructure'. This term has been defined as systems or assets so vital to the US that the incapacity or destruction of it would have a debilitating impact on national security. While the definition has been applied to ports and oil companies, it is unclear whether or to what degree electricity generating, transmission or distribution facilities would be considered critical infrastructure.

FINSA formalises many CFIUS practices, including explicitly encouraging parties to notify and engage with CFIUS regarding a transaction in order to seek CFIUS clearance. FINSA provides for a 30 to 45-day CFIUS review of covered transactions; reviews are mandatory for covered transactions involving foreign government-controlled entities.



### Update and trends

Technologies and devices for electricity storage are receiving increasing attention in the US. The ability to store energy can provide important benefits to the electrical grid both as a means of providing ancillary services to support reliability and as means for direct storage of electricity produced by renewable resources with intermittent availability, such as wind and solar. Technologies for electricity storage are varied and a few, such as pumped storage hydroelectric technology, are already commercially established.

Many of these technologies are still in development or limited operational-scale stages, such as compressed air energy storage, plug-in electric car vehicles and flywheels, and the high costs of the technologies has not yielded many commercially-viable devices. Some electricity storage devices, however, participate today in regulation service markets by providing stored electricity to correct for short-term changes in demand that could otherwise affect the stability of the power system. FERC has shown its desire to promote the development of these technologies.

In January 2010, FERC authorised ratemaking incentives (see question 10) for battery storage devices installed on the California ISO grid to provide voltage support and protection from transmission overloads. Western Grid Development, LLC, 130 FERC 61,056 (2010).

The novelty of developing electricity storage devices has presented challenges to regulators. Some electricity storage devices may have different operational characteristics and multiple uses, and they may not clearly lend themselves to the traditional classifications and functions of production, transmission or distribution.

In June, 2010, FERC staff asked for public comment on appropriate rate structure, accounting classification and reporting requirements for electricity storage facilities. FERC has received industry comments, but as of the fall of 2010, has not issued a ruling or policy statement in response to the filed comments. In September 2010, California passed a law directing the California Public Utilities Commission to establish targets for utility adoption of cost-effective energy storage technologies, the first law of its kind in the US.

For nuclear-generating facilities, the Atomic Energy Act (AEA) generally bars the issuance of a reactor licence to a non-US person. Situations where a foreign company would be able to hold a licence include when it owns up to 50 per cent of an entity whose officers and employees responsible for special nuclear materials are US citizens, or it owns a US subsidiary that will hold the licence, the foreign company's stock is 'largely' owned by US citizens, and the subsidiary's officers and employees responsible for special nuclear materials are US citizens.

### 30 Cross-border electricity supply

What rules apply to cross-border electricity supply, especially interconnection issues?

No electric transmission lines crossing the US international border may be constructed or operated without a presidential permit. The secretary of energy (through the DoE's Office of Electricity Delivery and Energy Reliability) will issue once a permit upon determining that the project is in the public interest. The two primary criteria used to determine if a proposed project is consistent with the public interest are the impact the proposed project would have on the operating reliability of the US electric power supply, and the environmental consequences of proposed projects. The DoE must also obtain concurrence from the secretary of state and the secretary of defence before issuing a permit.

The FPA allows exports of electric energy unless the proposed export would impair the sufficiency of electric power supply within the US or would impede or tend to impede the coordinated use of the US power supply network. Based on these guidelines from the FPA, DoE (again through the Office of Electricity Delivery and Energy Reliability) grants authorisation to export electric energy if it determines that sufficient generating resources exist such that the exporter could sustain the export while still maintaining adequate generating resources to meet all firm supply obligations, and the export would not cause operating parameters on regional transmission systems to fall outside of established industry criteria. The DoE must also comply with NEPA before granting authorisation to export electric energy. No federal permit is required to import electricity into the US and no federal permit is required to sell imported electricity, if the sale at issue takes place outside of interstate commerce. Federal regulation of a sale for resale in interstate commerce of imported or domestic electricity will apply if title to the electricity changes hands at a point within the US. In this case, the seller must apply to FERC for approval of the rates, terms and conditions of the sale. There are two exceptions. First, in the event the sale for resale in interstate commerce of imported or domestic electricity is conducted by a US government-owned, US state-owned, or US municipally owned

utility, or is conducted by a US Department of Agriculture Rural Utilities Service-financed rural electric cooperative, there will be no FERC regulation of the sale. Second, there will be no FERC regulation of retail sales of imported or domestic electricity. The state PUC may regulate the retail sales of electricity within its border.

### Transactions between affiliates

#### 31 Restrictions

What restrictions exist on transactions between electricity utilities and their affiliates?

On 16 October 2008, the Federal Energy Regulatory Commission (FERC) issued Order No. 717, which approves a final rule on standards of conduct governing relations between transmission providers for both electricity and natural gas and their affiliates. The new rule represents a retreat to first principles and adopts most if not all of the changes proposed in a Notice of Proposed Rulemaking (NOPR) issued 21 March 2008.

The new rules concentrate on three principles as the way to prevent affiliate abuse. The main elements of the new regulations are the independent functioning rule, the no-conduit rule, and the transparency rule.

#### Independent functioning rule

FERC eliminated completely the concept of energy affiliates as well as the corporate separation approach to separating grid operators from marketing affiliates, two aspects of the old Order No. 2004 rules that had proven difficult to understand and enforce. Instead, the new rules are based on the employee functional approach that was first utilised in industry restructuring orders from the 1980s and 1990s. This approach focuses on an employee's actual function on the job rather than the employee's position in the organisation chart. Thus, whereas under the former rules any employee of a marketing or energy affiliate was prohibited from interacting with transmission function employees, the new rules limit the category of employees who must function independently from transmission operators to those who are actively and personally engaged on a day-to-day basis in marketing functions. By narrowing the focus in this manner, the new rules provide needed clarity to supervisors, managers, and executives, and allow the free flow of the type of information needed for long-term planning.

#### No-conduit rule

The no-conduit rule prohibits a transmission provider from using anyone as a conduit for the disclosure of non-public transmission function information to its marketing function employees. FERC

believes the no-conduit rule is a critically important part of the new regulatory scheme and intends for this rule to cover both information and employees not falling within the scope of the independent functioning rule. For example, although there is no general requirement that lawyers employed by transmission providers need to function independently of the company's marketing function employees, lawyers must nevertheless avoid serving as a conduit for passing non-public transmission information to marketing function employees.

In the NOPR, FERC proposed a version of the no-conduit rule that would have prohibited marketing function employees from receiving non-public transmission function information from any source. In response to numerous objections, FERC eliminated this prohibition from the new regulatory text. But in so doing, FERC stressed that marketing function employees should remain vigilant about the possibility of inadvertent disclosures of non-public transmission information and be prepared to report such incidents to the company's chief compliance officer.

#### Transparency rule

The new regulations also contain a new transparency rule, the provisions of which are designed to alert interested persons and FERC to potential acts of undue preference. This rule is largely a collection of the existing public posting and reporting requirements, modified to conform with the new standards.

#### Reliability exception

Reflecting the importance of reliability, the new rules make an exception to the independent functioning rule and the no-conduit rule for the exchange of information 'pertaining to compliance with reliability standards approved by the Commission' and information 'necessary to maintain or restore operation of the transmission system or generating units, or that may affect the dispatch of generating units'.

#### 32 Enforcement and sanctions

Who enforces the restrictions on utilities dealing with affiliates and what are the sanctions for non-compliance?

FERC has authority to impose penalties in the amount of US\$1 million per day per violation under sections 316 and 316A of the FPA or to use its rate authority to remedy affiliate abuse (as discussed more fully in question 27).

Mechanisms for enforcement and remedies for violations of states' affiliate rules vary.

\* *The authors would like to thank Deborah A Carrillo, Ada Chen, and Stephen Markus for their assistance in drafting and researching this chapter.*

**pillsbury**

**Michael S Hindus**  
**Robert A James**  
**Joseph H Fagan**  
**Becky M Bruner**

**michael.hindus@pillsburylaw.com**  
**rob.james@pillsburylaw.com**  
**joseph.fagan@pillsburylaw.com**  
**becky.bruner@pillsburylaw.com**

50 Fremont Street  
San Francisco  
CA 94105  
United States  
Tel: +1 415 983 1000  
Fax: +1 415 983 1200

2 Houston Center, 909 Fannin Street  
Houston  
TX 77010  
United States  
Tel: +1 713 276 7600  
Fax: +1 713 276 7673

2300 N Street, NW  
Washington  
DC 20037  
United States  
Tel: +1 202 663 8000  
Fax: +1 202 663 8007

[www.pillsburylaw.com](http://www.pillsburylaw.com)

# Oil Regulation 2010

# Oil Regulation 2010

Robert A James, Stella Dorman and Joseph H Fagan\*

Pillsbury Winthrop Shaw Pittman LLP

## General

- 1 Describe, in general terms, the key commercial aspects of the oil sector in your country.

The US oil industry is divided into three sectors: upstream (exploration and production), midstream (processing, storage and transportation) and downstream (refining, distribution and marketing).

Industry participants are categorised as 'supermajors', 'majors' and 'independents'. 'Supermajors' are the handful of very large integrated companies that account for most of the US oil industry revenues. US-based supermajors include ExxonMobil, Chevron and ConocoPhillips, whereas the overseas-based supermajors BP and Shell have substantial US operations. Smaller-scale integrated firms include Marathon, Hess and Murphy Oil.

A larger number of companies specialise in particular sectors. The 'independents' engage exclusively in upstream activities and include Occidental, Devon, Anadarko and Apache. Midstream specialists include El Paso and Kinder Morgan. Refining and marketing operations are conducted by Valero, Sunoco, Tesoro and Western. The industry is supported by oil service companies led by Schlumberger, Halliburton and Baker Hughes, and by a variety of trade associations including the American Petroleum Institute (API).

US subsidiaries of national oil companies owned or controlled by foreign governments (NOCs) are important participants in the US oil industry. For example, Venezuelan-based Petr leos de Venezuela SA (PDVSA) owns Citgo's 13,000 retail outlets and interests in three refineries in the US.

'Proved reserves' are estimates of the amount of oil that is reasonably certain to be recoverable from known reservoirs under current economic and operating conditions. The US ranked eleventh among nations in proved oil reserves, estimated by the government at 19.1 billion barrels at the end of 2008. US proved reserves peaked in 1970 and have since declined by 49 per cent. About one-quarter of proved reserves are located offshore.

As of 2007, the US also has an estimated 177.8 billion barrels of unproved technically recoverable crude oil, 52 per cent of which is concentrated in federal land including offshore waters on the Outer Continental Shelf (OCS). In 2009, the Securities and Exchange Commission (SEC) changed its reporting guidelines for public companies to permit companies to report probable and possible reserves, as well as proved reserves.

- 2 What percentage of your country's energy needs is covered, directly or indirectly, by oil as opposed to gas, electricity, nuclear or non-conventional sources? What percentage of the petroleum product needs of your country is supplied with domestic production? What are your country's energy demand and supply trends, especially as they affect crude oil usage?

In 2008, oil provided an estimated 37 per cent of total US energy needs, along with coal (23 per cent), natural gas (24 per cent), nuclear

(9 per cent) and renewables (7 per cent). Seventy-one per cent of oil consumption occurred in the transportation sector, primarily in the form of gasoline. The industrial sector consumed another 23 per cent for heating, diesel engines and as petrochemical feedstock. Only 1 per cent of US power generation is fuelled by oil.

In 2008, the US consumed 19.5 million barrels per day (bbl/d) of petroleum products. The US produces approximately 35 per cent of its total petroleum product needs from domestic sources. Canada, Mexico, Nigeria, Saudi Arabia and Venezuela collectively provided 62 per cent of US imports.

The US Energy Information Administration (EIA) projects US liquid fuels and other petroleum consumption to increase by 0.3 per cent annually for the next two decades. US crude oil production peaked in 1970 and has declined 51 per cent since. Domestic production is nonetheless projected to increase until 2035 as rising world oil prices spur both onshore and offshore drilling.

Although US energy consumption is projected to continue to increase over the next 25 years, crude oil as a share of overall energy is projected by EIA to decrease as a result of federal and state renewable energy programmes and the rising cost of fossil fuels.

- 3 Does your country have an overarching policy regarding oil-related activities or a general energy policy?

After 13 years of debate, Congress passed the Energy Policy Act of 2005 (EPAct 2005). The EPAct 2005 made major changes to the electricity industry (eg, eliminating the Public Utility Holding Company Act of 1935) and included significant incentives for receipt of liquefied natural gas (LNG). In addition, the EPAct 2005 included significant provisions relating to liquid fuels such as incentives for the production of ethanol, which were as much an agricultural subsidy as an attempt to reduce dependence on petroleum.

On the heels of the EPAct 2005, Congress passed the Energy Independence and Security Act of 2007 (EISA). The EISA expanded the renewable fuels standard (RFS) programme initially developed under the EPAct 2005. EPA's 2010 regulatory revisions to the annual renewable fuel standards (RFS2) further expanded the programme by increasing the volume of renewable fuel required to be blended into transportation fuel from 12.95 billion gallons in 2010 to 36 billion gallons by 2022. RFS2 also established new specific annual volume standards for cellulosic biofuel, biomass-based diesel, advanced biofuel and total renewable fuel that must be used in transportation fuel. The EISA articulated a national policy aimed at reducing the country's carbon footprint and dependence on foreign oil through the use of renewable fuels.

In January 2009, a new administration took office and brought with it new policies relating to energy use and production in the US. The current US president has endorsed certain regulatory and legislative initiatives aimed at energy independence and reduction of greenhouse gases, such as the increase of the fuel efficiency standards for motor vehicles, the development of renewable energy technology

and 'green' jobs. Although the rhetoric of the new administration promotes certain major changes to US energy policy, it remains to be seen how these ideas will actually become incorporated into US law and regulation.

### Regulation overview

- 4 Describe the key laws and regulations that make up the general legal framework regulating oil activities?

The determination of which laws apply to oil activities at a given surface location depends on whether the underlying resources and location are owned by a federal or state government or by private parties, and whether the location is onshore or offshore.

The Mineral Lands Leasing Act governs upstream activities on federal onshore property, while the OCS Lands Act governs development of federal offshore property. Additional industry-specific federal statutes include the Oil and Gas Royalty Management Act governing lease and royalty agreements, and the Petroleum Marketing Practices Act regulating supply agreements and leases held by retailers and wholesalers of trademarked motor fuels.

State laws, such as the Texas Natural Resources Code and the California Public Resources Code, govern exploration and production on state-owned land, including state offshore property, and privately owned land.

- 5 Identify and describe the government regulatory and oversight bodies principally responsible for regulating oil activities.

Within the Department of the Interior (DOI), the Bureau of Land Management (BLM) regulates oil exploration and production on federal onshore property; the Minerals Management Service (MMS) regulates federal offshore activities; and the Bureau of Indian Affairs (BIA) regulates American Indian land development along with the BLM. The Federal Energy Regulatory Commission (FERC) has jurisdiction over interstate oil pipelines. The Department of Energy (DOE) administers the Strategic Petroleum Reserve, collects industry data, and funds and conducts other energy research and production programmes.

Each of the major oil-producing states has an agency tasked with regulating certain upstream activities, such as the issuance of drilling permits and intrastate pipeline transportation. These agencies include the Railroad Commission of Texas; the California Department of Conservation's Division of Oil, Gas and Geothermal Resources; the Louisiana Office of Conservation; and the Alaska Department of Natural Resources' Division of Oil and Gas. Some state public utility commissions oversee aspects of intrastate oil pipelines.

Many other agencies enforce police power laws and regulations regarding environmental, health, safety and work conditions (see question 20).

- 6 How does your country manage appeals of government regulatory decisions?

Federal agency actions are governed by the Administrative Procedure Act and related rules. Industry-wide rulemakings follow different appeal processes than party-specific adjudications. Review of an agency adjudication is generally available first within the agency. Parties affected by federal agency action generally have a right of appeal directly to a US Court of Appeals after the agency has made its final, appealable determination, and the parties have exhausted any available administrative remedies; further review by the US Supreme Court is discretionary.

When reviewing a final agency adjudication, the courts are typically deferential to the agency's opinion and unlikely to overturn it unless the petitioner can show a failure to comply with applicable procedural or statutory requirements, an abuse of discretion, or

constitutional grounds for reversal. Review of agency rulemaking is granted even more deference on review. (States have their own administrative procedure laws governing appeals.)

- 7 What standards are employed for oil measurement and oil facility equipment? Are these voluntary or involuntary? Are they established by a government body?

Federal and state laws do not typically mandate measurement or equipment standards. Instead, regulations refer to or supplement privately established standards. The API has led the development of oil equipment and operation standards. The API's Manual of Petroleum Measurement Standards (MPMS) is widely used, as are publications of the American National Standards Institute (ANSI) and the American Society for Testing and Materials (ASTM).

- 8 What government body maintains oil production, export and import statistics?

Official statistics on oil production, imports and exports are collected by the Energy Information Administration (EIA) of the DOE. EIA also provides forecasts and analysis of oil consumption, production, reserves, refining and trade. State agencies maintain data on local oil production.

### Natural resources

- 9 Who holds title over oil reservoirs? To what extent are mineral rights on private and public lands involved? Is there a legal distinction between surface rights and subsurface mineral rights?

In the US, title to oil, gas and minerals is generally held by the owner of the surface until and unless that right is severed and granted to others. This title to the mineral estate may be separated from the surface estate by a grant or a reservation. When the mineral estate has been severed from the surface estate, the mineral estate owner holds what is referred to as the 'dominant estate', and the surface estate owner holds the 'servient estate'. In general terms, this means that the mineral estate owner has the right of reasonable access to and use of the surface estate in order to exploit the minerals.

In Louisiana, the only civil law state in the US, mineral rights do not exist as a separate, perpetual estate in land, but rather can only be held separate from the surface in the form of a 'mineral servitude'. The servitude gives its holder the right to enter the property and extract the minerals, but it may expire, or prescribe, after 10 years of non-use.

Both the federal government and many states own oil, gas and mineral rights both onshore and offshore. Government and private transfers frequently reserve to the grantor all or a portion of the mineral rights, so the land title records must be carefully reviewed.

- 10 What is the general character of oil exploration and production activity conducted in your country? Are areas off-limits to exploration and production?

In 2009, US oil production was concentrated in federal offshore waters (30 per cent), Texas (20 per cent), Alaska (12 per cent), California (11 per cent), North Dakota (5 per cent) and Louisiana (4 per cent). The primary contributors to production growth in 2009 and 2010 were the Thunder Horse, Tahiti, Shenzi and Atlantis offshore fields located in the federal offshore waters of the Gulf of Mexico.

Almost all existing offshore leasing is in the central and western Gulf of Mexico. In March 2010, the US president proposed allowing for the first time oil and gas production in large areas off the East Coast, in the eastern Gulf of Mexico, and potentially off the coast of Alaska. This proposal was almost immediately followed by the Deep-water Horizon drilling rig explosion and oil spill. The US president



has declared a six-month moratorium on deepwater drilling activities in the Gulf of Mexico, cancelled a lease sale off the coast of Virginia, and suspended all applications for exploratory drilling in the Arctic. The future of offshore drilling – especially deep water offshore drilling – is uncertain in light of this incident.

Onshore, the Arctic National Wildlife Refuge in Alaska remains off limits to drilling despite intense debate in Congress. Apart from national parks and wilderness areas, federal lands outside Alaska are largely available for exploration and production. However, federal and state agencies can also impose drilling restrictions on particular lands on environmental, military or other grounds.

**11** What government body regulates oil exploration and production in your country? What is the character of that regulation?

US practices do not feature concessions or production sharing agreements typically associated with a state oil company. The right to conduct exploration and production on the lands of another is obtained through an oil and gas lease granting the right to explore for and extract oil from the leased premises, and the ownership of oil actually produced. The terms of the lease and applicable law limit lessee activities.

Processes established by the BLM (onshore), MMS (offshore), and BIA (American Indian lands) govern the awarding of leases for land, subject to federal jurisdiction. Analogous state agencies award leases for state-owned lands. Private owners of subsurface mineral rights negotiate or invite tenders for leases, which may follow trade association formats or contain terms and conditions specific to the particular lease.

**12** If royalties are paid, what are the royalty rates? Are they fixed? Do they differ between onshore and offshore production?

Federal leases impose a fixed royalty of a defined fraction of the amount or value of the oil or gas removed or sold from each lease. A royalty rate of one-eighth was common up until the 1970s, though currently rates such as three-sixteenths or one-sixth are common. For onshore operations, this federal rate must be no less than one-eighth, whereas offshore operations tend to have one-sixth royalty rates. Statutes fix most federal royalty rates, but both the DOI and special legislation (like the Deep Water Royalty Relief Act) can modify standard terms, usually by reducing the stated royalty rate or suspending payment of royalties, to make frontier development more attractive.

State and private leases have more variability in their royalty terms, and may include a basis for payment other than proceeds or market value. States reap varying portions of the royalty for federal leases of land within or adjacent to their borders.

**13** What is the customary duration of oil leases, concessions or licences?

Private as well as public oil and gas leases usually feature a fixed primary term and a conditional secondary term. The number of years in the primary term ranges from as low as one year in mature fields to 10 years for frontier regions; private and American Indian leases tend to have short primary terms. Even though no production may be required during the primary term, the lease may be subject to termination if the lessee fails to drill test wells or undertake specified action or, in lieu thereof, pay an additional rental fee.

The secondary term continues indefinitely beyond the primary term so long as either the leased area produces oil or gas in paying quantities or the lessee performs other specified activities on the leased premises. The lease often excuses brief interruptions in production and longer interruptions due to force majeure.

**14** For offshore production, how far seaward does the regulatory regime extend?

The Submerged Lands Act establishes state jurisdiction over submerged lands extending three nautical miles (3.5 statutory miles, or 5.6 kilometres (km)) offshore (except Texas and Florida on the Gulf of Mexico, whose jurisdiction extends three leagues (approximately 10 statutory miles, or 16km)). The OCS Lands Act establishes federal jurisdiction beyond the state limit, and a 1983 presidential proclamation declared that jurisdiction to extend to the boundary of the US Exclusive Economic Zone, 200 nautical miles (about 230 statutory miles, or 370km) from the coastline. (In practice, oil development is active only to the edge of the OCS.)

**15** Who may perform exploration and production activities? What criteria and procedures apply in selecting such entities?

The MMS employs sealed-bid processes for OCS leases in accordance with a five-year plan. Auctions are based not on variable royalty rates but rather on the 'signature bonus' offered. The BLM may negotiate federal onshore leases individually, but awards most through a less formal bid process. (See question 28 regarding restrictions on foreign holdings.)

**16** What is the legal regime for joint ventures?

The US does not specify a particular kind of joint venture for collaborative development of an oil production project. Operations by one or more party come in two main categories. The first is a contract venture to share costs and benefits from a joint undertaking, often conducted by one mineral rights owner or lessee on behalf of others with interests in the same land or in lands embracing a particular reservoir. (An example is the joint operating agreement, often entered into on Association of International Petroleum Negotiators (AIPN) or Association of American Landmen (AAPL) forms. The accounting procedure under a joint operating agreement is often that specified by the Council of Petroleum Accounting Societies (COPAS).) The second category consists of separate legal entities, which are typically encountered in processing, midstream and downstream applications. These entities include general or limited partnerships, corporations and limited liability companies.

**17** How does reservoir unitisation apply to domestic and cross-border reservoirs?

Unitisation is the consolidation of exploration and production activities affecting several parcels of land, or several interest holders in a given parcel. The consolidated activities are usually conducted by a unit operator. The goal is the efficient development of the reservoir and equitable distribution of the costs, risks and benefits of production. Unitisation may be consensual or, in several jurisdictions, may be mandated when statutory requirements are triggered or agency determinations are made. Unitisation of federal lands requires DOI approval. There are no cross-border reservoir unitisations involving the US.

Pooling can be voluntary or compulsory under certain state statutes. Pooling joins the interests of the surrounding owners into a single drilling and spacing unit which is entitled to only one well location. Unlike unitisation, however, pooling does not have as its goal the efficient development of the reservoir. Instead, pooling still results in competitive operations, albeit among the larger pooled units.

---

**Transportation**

- 18** How is transportation of crude oil and crude oil products regulated within the country and across national boundaries? Do different government bodies and authorities regulate pipeline, marine vessel and tanker truck transportation?

Rates and other terms for oil transportation via interstate pipelines are regulated by the Federal Energy Regulatory Commission (FERC), and pipeline operators must file tariffs with FERC. FERC generally allows carriers to charge market-based rates up to a ceiling. FERC regulations also require interstate carriers to provide non-discriminatory service to all shippers. The Pipeline and Hazardous Materials Safety Administration of the Department of Transportation (DOT) regulates the safety of interstate oil pipelines. States regulate intrastate oil pipelines and may regulate gathering lines and other transportation activities. Some states have adopted variations of FERC's market-based rates policy.

Trucking and marine vessel transportation prices are not currently regulated. However, safety, health and environmental regulations apply generally to pipelines, vessels and trucks (see question 20).

- 19** What are the requisites for obtaining a permit or licence for transporting crude oil and crude oil products?

Construction of a new interstate oil pipeline does not require approval from the federal government unless the pipeline will cross federal lands, but the operator must file a tariff with FERC. Pipeline construction projects require permits from state or local agencies, although some states no longer require public utility approval to construct new pipelines. Other forms of transportation are not generally subject to public utility regulation, but are subject to the Federal Motor Carrier Safety Act and other health, safety and environmental laws.

---

**Health, safety and environment**

- 20** What health, safety and environment requirements apply to oil-related facility operations? What government body is responsible for this regulation; what enforcement authority does it wield? Are permits or other approvals required? What kind of record-keeping is required? What are the penalties for non-compliance?

**Entitlements for development**

A new or modified exploration or development operation will usually need a local land use development permit as well as drilling and operating permits. Many projects must undergo a thorough environmental impact review under the federal National Environmental Policy Act (NEPA) or a state analogue. The process includes substantial public involvement and can be quite contentious. Failure to complete the process or comply with permits can lead to significant delays, penalties and injunctions.

**Discharge restrictions**

The federal discharge laws applicable to the oil sector are generally not industry-specific. They are instead based on a particular impact: the Resource Conservation and Recovery Act (RCRA) for management of solid and hazardous waste; the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) for cleanup of contaminated sites; the Clean Air Act (CAA) for air emissions; and the Clean Water Act (CWA) and Safe Drinking Water Act (SDWA) for water discharges. The principal federal enforcement agency is the Environmental Protection Agency (EPA), but state agencies enforce similar state laws and can also be delegated authority by the EPA to implement and enforce certain federal statutes such as the CAA.

While the foregoing environmental laws are economy-wide, there are some statutes that are focused on the oil and gas sector. For example, the Oil Pollution Act of 1990 (OPA) addresses clean-up and damage assessments relating to oil spills into the navigable waters

of the US, the adjoining shorelines, or the exclusive economic zone. Another example is the Pipeline Safety Improvement Act of 2002, which governs the way in which the natural gas industry ensures the safety and integrity of its pipelines.

Under the CWA, the EPA has issued effluent guidelines specific to both upstream and downstream oil operations, as well as rules applicable to the discharge of oil into navigable waters. Both federal and state environmental laws regulate new and existing sources of air pollution. New sources, including existing sources undergoing major modifications, must often comply with more stringent emissions or technology standards.

Certain statutes also provide for the assessment of natural resource damages. Specific to the oil industry, OPA provides that responsible parties under the Act are liable for certain damages caused by an oil spill, which include damages to natural resources, real or personal property, subsistence use, lost government revenues, lost profits and earning capacity, and lost public services.

Both CERCLA and OPA designate state and federal governments, and Indian tribes as trustees over the natural resources with the obligation to act on behalf of the public to recover damages. Therefore, when natural resources are damaged due to a discharge or release, one or more trustees will be responsible for ensuring that the resources are restored to their baseline condition and that the public is compensated for the interim loss of use. For example, the National Oceanic and Atmospheric Administration (NOAA) has primary responsibility to ensure that coastal resources are restored to their original condition and use.

Discharge or emission limits may apply to all sources of a particular type (eg, refinery heaters and boilers), or may be facility-specific. Regulations and permit conditions may include detailed record-keeping and reporting requirements. Each statute and agency has considerable penalty, injunction and criminal law remedies for non-compliance (eg, maximum of US\$37,500 per day fines and imprisonment for CAA violations), and in some cases private parties may also recover damages or enforce public interests via citizen suits.

Recently, the EPA has enacted regulations under the CAA requiring certain facilities to monitor and record greenhouse gas emissions pursuant to the Mandatory Reporting Rule (MRR). Depending on the facility, the monitoring and record-keeping requirements can be substantial. Facilities covered by the new rules include both upstream and downstream operations.

**Navigation**

Activities affecting navigable waters are regulated by the Army Corps of Engineers, the US Coast Guard, and various other agencies such as port authorities, each of which enforce laws such as the CWA and the River and Harbors Act.

**Ecology**

The Endangered Species Act can prohibit activities that might materially impair the habitats of threatened and endangered species. For example, a new facility might be prohibited in an area with an endangered plant species, or particular mitigation measures (such as habitat replacement or augmentation) might be required to minimise adverse impacts to an animal species. For offshore exploration, the Fishery Conservation and Management Act governs impacts on the fishing industry, and the Marine Mammal Protection Act does the same for the affected mammals. In addition, the Migratory Bird Treaty Act prohibits the taking or injuring of migratory birds, including nests and eggs, and the National Marine Sanctuaries Act authorises the secretary of commerce to designate and protect areas of the marine environment having special national significance.

**Cultural resources**

A number of mandates deal with projects that may disturb or uncover property of cultural significance, including the National Historic Preservation Act of 1966, the American Antiquities Act of

1906, the Archaeological Resources Protection Act of 1979, and the Abandoned Shipwreck Act.

### Health and safety

The Occupational Safety and Health Administration (OSHA) and state and local governments all enforce rules protecting employees and contractors from workplace injuries. The MMS regulates and enforces safety rules at offshore facilities such as drilling rigs and oil platforms. Record-keeping requirements can be very significant; for example, records of occupational injury must be kept for the duration of the employee's service plus 30 years.

In addition to record-keeping requirements, OSHA also imposes certain inspection and safety programme requirements involving mechanical integrity of equipment, hazards analysis and process safety. OSHA inspects facilities and has the power to issue citations for violations. Recently, OSHA issued the largest citation in its history – over US\$87 million – after finding that the oil refinery had failed to correct previously cited safety hazards.

The Chemical Safety Board (CSB) has the authority under the CAA to investigate accidental releases resulting in a fatality, serious injury or substantial property damages. This authority includes releases occurring at oil-related facilities such as refineries. Although the CSB does not possess enforcement powers under its enabling statute, the board does issue public recommendations and reports that can influence other agency decisions.

### Homeland security

The Department of Homeland Security (DHS) implements requirements relating to safety and security under the Maritime Transportation Security Act of 2002 (MTSA) and the Chemical Facility Anti-Terrorism Standards (CFATS). The MTSA requirements include development of site security plans, designation and management of certain information as sensitive security information (SSI), and security clearances for personnel. The CFATS interim final rule issued in 2007 requires covered chemical facilities to prepare security vulnerability assessments, which identify facility security vulnerabilities, and to develop and implement site security plans, which include measures that satisfy the identified risk-based performance standards.

- 21** What health, safety and environmental requirements apply to oil and oil product composition? What government body is responsible for this regulation; what enforcement authority does it wield? Is certification or other approval required? What kind of record-keeping is required? What are the penalties for non-compliance?

The EPA regulates the composition of mobile source fuels and fuel additives. However, a large portion of oil regulation occurs at the state level. Sales of imported products that do not comply with EPA standards are prohibited. Uniquely, California may adopt its own fuel standards, which may then be adopted verbatim by other states. These regulations specify many elements of fuel composition, such as volatility and aromatics, oxygenate and sulphur content.

Recently there have been several major federal fuel specification changes. Among these changes are a reduction in the sulphur content of gasoline, the elimination of the 2 per cent oxygen content requirement under the CAA for reformulated gasoline, and the 2010 revisions to the renewable fuels standard programme (RFS2) under the EISA (see question 3). On the state level, California regulators have recently adopted the Low Carbon Fuel Standard (LCFS), which regulates the carbon intensity of California fuels in order to reduce the amount of greenhouse gas emissions associated with transportation fuels. Other states considering adopting LCFS regulations include Oregon and Washington.

In most cases, fuel composition must be certified by the EPA or the state air authority. These agencies may impose substantial penalties for sale of non-complying fuels and for failure to maintain accurate composition and manufacturing records. The EPA incentiv-

ises self-evaluation, self-disclosure and correction of violations by not recommending civil or criminal penalties for entities that promptly address their non-compliance.

Other oil-based products, such as lubricants and solvents, are regulated by the EPA pursuant to the Toxic Substances Control Act (TSCA). The TSCA authorises the EPA to require pre-manufacture notifications (PMN) for any new chemical substances prior to its being imported to, or manufactured in, the US above a certain threshold amount. In most cases, PMNs must be supported by adequate health and safety data, and the TSCA imposes reporting and record-keeping obligations on manufacturers and distributors of subject chemical substances. Violations of the TSCA can result in civil and criminal penalties, as well as seizure of products manufactured or distributed in violation of the Act.

### Labour

- 22** What government standards apply to oil industry labour? How is foreign labour regulated? Are there anti-discrimination requirements? What are the penalties for non-compliance?

#### Foreign workers

Oil companies, like other private employers, must comply with a variety of laws respecting immigration. Hiring a non-resident generally requires an employment-based (or 'non-immigrant') visa, such as the L-1 for existing foreign employees of a corporate group who will be working in an executive, managerial or specialised-knowledge position for the US subsidiary or branch; the H-1B for new employees for positions with professional, college-level degree requirements; or the B-1 for shorter-term assignments. US employers must guard against the hiring of undocumented individuals under the Immigration Reform and Control Act, and many oil companies require their contractors to warrant they have not engaged in such hiring.

#### Labour relations

Employers in oil as well as other sectors must comply with a wide range of federal statutes and regulations, including the National Labor Relations Act (NLRA), the Fair Labor Standards Act (FLSA), the Family and Medical Leave Act (FMLA), and the Occupational Safety and Health Act (OSH Act). State and local laws and agencies supplement the federal workplace rules.

The NLRA confers on private sector employees a variety of rights to form unions; to engage in union organisation campaigns; to bargain collectively; and to strike and take other concerted activity. The NLRA also imposes limitations on those rights, and empowers employers to conduct labour relations alone or in concert with similarly situated firms, and is enforced by the National Labor Relations Board. Important labour unions in the US oil industry include the Oil, Chemical and Atomic Workers Union.

The FLSA imposes overtime and minimum wage requirements for certain 'non-exempt' employees (ie, those not in exempt categories, including management and some administrative activities). Specific wage or overtime rules are provided for some particular oil industry employers, such as certain wholesale distributors of refined products. The FLSA is enforced by the Department of Labor (DOL).

The FMLA requires larger employers to provide up to 12 weeks of unpaid annual leave for certain employees who have serious health conditions or who desire to care for dependants. An employee who exercises the FMLA right enjoys certain assurances of post-leave employment and protection from retaliation. This statute is also enforced by the DOL.

The OSH Act created OSHA to set and enforce workplace health and safety standards. In response to an explosion and fire in 2005 at a BP refinery in Texas that killed 15 employees and injured 170 others, OSHA announced the Petroleum Refinery Process Safety Management National Emphasis Program (NEP) in 2007. In 2009, OSHA issued a report describing its first year NEP results. OSHA



noted its concern that inspection teams found many serious process safety management compliance issues at refineries. Congress is currently considering a bill entitled 'Protecting America's Workers Act' which, if passed, will increase the maximum fines allowable under the OSH Act, and provide additional whistle-blower protection for workers.

### Anti-discrimination

Many federal, state and local laws prohibit discrimination in employment on the basis of a 'protected classification' such as race, colour, sex, religion, national origin, disability (mental or physical, including pregnancy), age, Vietnam-era veteran status, sexual orientation or medical condition. Even an ostensibly neutral policy that results in a 'disparate impact' on a race or sex classification can be the basis for a claim, unless the employer can demonstrate the policy is justified by 'bona fide occupational qualifications'. The federal laws include title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act, 42 USC section 1981 (prohibiting racial discrimination in employment), the Equal Pay Act, the Rehabilitation Act and the Americans with Disabilities Act. These statutes are generally enforced by the Equal Employment Opportunity Commission.

The remedies for a discrimination claim can be significant. They can include orders of reinstatement, back and front pay, compensatory damages such as pecuniary losses and emotional distress, and punitive or exemplary damages. Only a few of the anti-discrimination laws have maximum penalties, such as the US\$300,000 limitation under title VII for compensatory and punitive damages. Oil industry employers have faced significant claims, both by individuals and by collections of similarly situated employees bringing class actions. For instance, in 1996 Texaco paid over US\$170 million to settle racial discrimination lawsuits. At the time, it was the largest racial discrimination settlement in the United States.

### Taxation

- 23** What is the tax regime applicable to oil exploration, production, transportation, and marketing and distribution activities? What government body wields tax authority?

The income tax regime for exploration and production has numerous special features, whereas transportation, marketing and distribution are generally subject to the same rules facing other industrial businesses. A host of industry-specific deductions apply to upstream expenditures – including pre-drilling exploration costs, intangible drilling costs, accelerated depreciation of oilfield equipment and depletion of subsurface resources. Tax planning is required for optimal acquisition and divestiture of leases and other production interests, such as production payments and farm-ins. State income tax laws supplement these provisions and incentives (though not all states impose an income tax). Some states also impose severance taxes on production.

Federal and state excise taxes are collected on the retail sale of motor fuels. Oil companies are subject to state property tax on holdings of real property and certain personal property; state sales and use tax on certain acquisitions of personal property; withholding requirements on distributions to certain foreign shareholders and partners; and transfer taxes on sales of real property.

The Oil Spill Liability Trust Fund, authorised under OPA, is funded in part through an 8 per cent tax levied on oil companies for every barrel of oil produced in or imported into the US.

The principal tax agency is the Internal Revenue Service at the federal level, with customs duties being handled by the US Customs Service of the Department of the Treasury, and state taxes being administered by a variety of agencies.

### Commodity price controls

- 24** Is there a mandatory price-setting regime for crude oil or crude oil products? If so, what are the requirements and penalties for non-compliance?

Crude oil is an international commodity, and as such its price is determined by international supply and demand factors. Neither the US federal government nor the states currently regulate the price of crude oil or refined products. More than half of the states have laws or regulations that seek to regulate 'price gouging', particularly during times of declared emergency.

### Competition, trade and merger control

- 25** What government bodies have the authority to prevent or punish anti-competitive practices in connection with the extraction, transportation, refining or marketing of crude oil or crude oil products?

Two agencies enforce federal competition laws (called 'antitrust laws' in the US): the Antitrust Division of the Department of Justice (DOJ) and the Federal Trade Commission (FTC). Each enforces statutes of general application, including the Sherman Act on cartels and monopolisation; the Clayton Act on mergers, exclusive dealing and tying arrangements; and the Robinson-Patman Act amendments to the Clayton Act on price discrimination and related practices. The FTC also enforces the Federal Trade Commission Act prohibiting 'unfair methods of competition' and similar offences.

Many states and some subdivisions have antitrust and unfair competition acts of broader generality. Private parties may also bring lawsuits seeking relief for most competition laws. At all levels, sanctions can include compensatory damages, punitive damages (often mandatory trebling of the compensatory damages), recovery of attorneys' fees and injunctive relief.

Regulations on concentration of oil lease holdings include the MMS's Restricted Bidder List of companies not permitted to acquire more leases in a given region, and the review of new OCS lease awards by the FTC and DOJ.

In the aftermath of Hurricane Katrina, the FTC conducted a congressionally mandated investigation into whether gasoline prices were artificially manipulated. In its 2006 report, the FTC found no instances of the illegal market manipulation but isolated examples of pricing not justified by supply and demand conditions.

- 26** What is the process for procuring a government determination that a proposed action does not violate any anti-competitive standards? How long does the process generally take?

The DOJ's business review letter programme and the FTC's advisory opinion programmes are sometimes used for comfort on proposed joint ventures, information exchanges and similar concerted activities. The review period can extend many weeks or months from the submission of all supporting data, and the agencies only describe their current enforcement intentions without definitively approving the conduct.

Certain joint ventures, mergers and business purchases are subject to mandatory reporting under the Hart-Scott-Rodino Antitrust Improvements Act. Reports are made to both the DOJ and the FTC, but the FTC usually takes the more active role for oil industry matters. The parties are prohibited from closing the transaction until expiration of a waiting period for the government to decide whether to seek an injunction. The waiting period is usually 30 days after filing, or 15 days in the case of a cash tender offer, but can be extended when an agency asks for more data. After the waiting period expires, the parties can close but the agencies can still decide to file suit later. (In 2005, the FTC imposed divestiture orders on a merged oilfield business four years after the merger closed.)

**International**

**27** To what extent is regulatory policy or activity affected by international treaties or other multinational agreements?

Although the US is not a signatory to the Law of the Sea Treaty, federal laws and executive orders have promulgated US offshore territorial zones and economic exclusion zones that are comparable to those under the treaty.

The 1978 protocol to the 1973 International Convention for the Prevention of Pollution from Ships (MARPOL) has spawned several US statutes pertaining to oil tankers, including OPA, the Port and Tanker Safety Act and the Act to Prevent Pollution from Ships.

The US is a member of the World Trade Organization (WTO) and a party to various WTO agreements. These instruments generally require member states not to discriminate against products and services of any member state or between products and services of different member states. However, there is an exception for free trade agreements such as the North American Free Trade Agreement (NAFTA), which creates zero-duty regimes for imports and exports of products among Canada, the US and Mexico, specifically including crude oil and refined products.

**28** Are there special requirements or limitations on the acquisition of oil-related interests by foreign companies or individuals?

The presence of BP, Shell and PDVSA/Citgo demonstrates that foreign investment in oil resources has been welcomed and successful. However, some restrictions exist or may emerge.

Foreign persons cannot directly hold federal oil leases or certain pipeline interests. But so long as their country of domicile does not discriminate against US persons, US laws permit such foreigners to own equity of a US legal entity that does hold the interest.

Foreign-owned and foreign-flagged oil tankers may call at US ports en route to and from foreign destinations. The combination of statutes known as the Jones Act requires that 'coastwise' trade between US ports generally must be conducted by vessels built and flagged in the US and staffed with US crews.

The OCS Lands Act limits foreign staffing of many OCS facilities. Foreign investors must comply with record-keeping requirements of the International Investment and Trade in Services Survey Act.

The Exon-Florio Amendment to the Defense Production Act of 1950 empowers a committee of several cabinet departments (the Committee on Foreign Investment in the United States, or CFIUS) to determine whether foreign acquisition of a US business threatens the

**Update and trends**

Both anticipated and unexpected events are affecting the prospects for oil production in the US. On the expected front, the EPA has started the process of regulating greenhouse gas emissions. Its first major action was to implement an information-gathering rule called the Mandatory Reporting Rule (MRR) in 2009, pursuant to its authority under the CAA. The MRR requires certain upstream and downstream facilities to record and report greenhouse gas emissions to the EPA. The EPA has indicated that the information gathered will inform future policy decisions relating to the regulation of emissions.

Unexpected events have also disrupted the US oil industry and could potentially lead to major regulatory changes, especially in the offshore exploration and production sector. At the forefront is the Deepwater Horizon drilling rig explosion and oil spill in the Gulf of Mexico in April 2010. An immediate reaction to this event has been the US secretary of the interior's proposal to restructure MMS into two or more separate agencies in order to divide the responsibilities for revenue collection and leasing from inspections and safety enforcement. As part of this comprehensive restructuring, MMS was renamed the Bureau of Ocean Energy Management effective June 2010. It is anticipated that federal regulations relating to drilling operations will become much more stringent and that oversight will be enhanced (see question 10).

national security of the United States and, in certain circumstances, request that the president determine whether to suspend the proposed transaction.

Official CFIUS guidance published in 2008 restated the current review factors, including the effects of the proposed transaction on national requirements for energy sources and physically critical infrastructure 'such as major energy assets'. The impact of CFIUS review will be fact-specific depending on the characteristics of the proposed acquisition.

**29** Do special rules apply to cross-border sales or deliveries of crude oil or crude oil products?

**Imports**

Imports of crude oil generally are subject to the regulations and standards of the US Federal Trade Commission, US Customs, the US Department of Energy, and the Federal Energy Regulatory Commission. Furthermore, if the import is a consumer product or a hazardous material, the import is subject to regulations and standards of the Consumer Product Safety Commission in the first instance and



**Robert A James**  
rob.james@pillsburylaw.com

**Stella Dorman**  
stella.dorman@pillsburylaw.com

**Joseph H Fagan**  
joseph.fagan@pillsburylaw.com

50 Fremont Street  
San Francisco, CA 94105  
United States  
Tel: +1 415 983 1000  
Fax: +1 415 983 1200

2 Houston Center, 909 Fannin Street  
Houston, TX 77010  
United States  
Tel: +1 713 276 7600  
Fax: +1 713 276 7673

2300 N Street, NW  
Washington, DC 20037  
United States  
Tel: +1 202 663 8000  
Fax: +1 202 663 8007

www.pillsburylaw.com

regulations and standards of the US Department of Transportation in the second. While in a few limited instances the Department of Energy must authorise importation of petroleum products, generally, licences are no longer required to import petroleum products.

**Exports**

The Department of Commerce restricts exports of all domestically produced crude oil by requiring a licence for the export of crude oil to all countries, including Canada. Except for a few categories of transactions where the Bureau of Industry and Security (BIS) will automatically approve a licence application, the BIS reviews licence applications on a case-by-case basis. The BIS will analyse the application to determine if the transaction is in the national interest and consistent with the purposes of the Energy Policy and Conservation Act. Exports of refined products are not currently limited in this manner.

**Embargoes**

The US maintains unilateral economic embargoes on certain countries, most notably Cuba, Iran and Sudan, pursuant to regulations administered by the Treasury Department's Office of Foreign Assets Control. These embargoes can prohibit US persons from engaging in transactions involving the embargoed countries or their companies or nationals, even when nothing will be imported into or exported from the US.

*\* The authors would like to thank Deborah Carrillo and Ada Chen for their assistance with this year's update of the United States chapter.*



# Gas Regulation 2010



# Gas Regulation 2010

Joseph H Fagan, Michael S Hindus, Robert A James and Julie D Hutchings\*

Pillsbury Winthrop Shaw Pittman LLP

---

## Description of domestic sector

- 1 Describe the domestic natural gas sector, including the natural gas production, liquefied natural gas (LNG) storage, pipeline transportation, distribution, commodity sales and trading segments and retail sales and usage.

The upstream segments of the United States gas sector are conducted by the same kinds of entities that engage in the exploration and production of liquid hydrocarbons. These segments are characterised by a variety of private parties, from individual entrepreneurs to large integrated firms, engaged in securing grants of licences and leases to explore for and produce valuable substances. Processing of gas and fractionation of natural gas liquids (NGLs) can occur in the field by the lessee, or downstream in plants on gathering or trunk lines between the field and the main trunkline pipeline systems. The midstream and downstream segments of gas and LNG storage, trunkline transportation and local distribution are typically conducted by private entities subject to public utility regulation at the federal or state level, or by municipal utility districts.

The US (including Puerto Rico) has 11 LNG terminals. Twenty-two terminals have been permitted to be built by utilities, private and publicly traded development firms, and oil companies with gas production in the developing world.

There are approximately 293,000 miles of natural gas pipelines in the US, approximately 65 per cent of which consists of interstate pipelines. The interstate natural gas pipeline grid consists of about 183 billion cubic feet (bcf) per day of capacity and approximately 217,000 miles of pipeline. The grid continues to grow: in 2008, 84 natural gas pipeline projects were completed, adding close to 4,000 miles, the largest amount of pipeline construction in more than 10 years. These projects included extensions to access three new LNG terminals.

- 2 What percentage of the country's energy needs are met directly or indirectly with natural gas and LNG? What percentages of the country's natural gas needs are met through domestic production and imported production?

According to the Energy Information Administration (EIA), in 2008 natural gas (including LNG) accounted for nearly one-quarter of US energy consumption. Natural gas consumption was approximately 23 trillion cubic feet (tcf); roughly 82 per cent of that demand – about 20.6tcf – was met through domestic production. Net imports satisfy the balance of demand. In 2008, imports amounted to almost 4tcf, comprised of pipeline imports (91 per cent) and LNG (9 per cent). Almost all of the natural gas that the US imported via pipeline in 2008 was from Canada, with about 1 per cent coming from Mexico. Most of the LNG that the US imported in 2008 – about 75 per cent – came from Trinidad and Tobago.

- 3 What is the government's policy for the domestic natural gas sector and which bodies set it?

A central feature of US governmental policy for the domestic natural gas sector is to prevent firms with monopoly power from being able to abuse that power. However, this is balanced by policies that support increased gas production and, for limited parts of the sector, deregulation and the promotion of competitive market forces. Policies are set by the legislative and executive branches of both federal and state governments, with significant delegation of authority to administrative agencies that are part of the executive branch, particularly the Federal Energy Regulatory Commission (FERC).

---

## Regulation of natural gas production

- 4 What is the ownership and organisational structure for production of natural gas (other than LNG)? How does the government derive value from natural gas production?

In contrast to the oil sector, in which some companies are active in all segments, it is more common for companies in the natural gas sector to concentrate on two or three segments (eg, production and gathering, or transmission and storage). Ownership of pipeline transportation capacity is separated from ownership of the natural gas transported via pipeline, although some Canadian producers also own natural gas pipelines that cross from Canada into the US.

The federal government does not participate directly as a party in private natural gas production transactions. It derives value from natural gas production through the royalties, annual rentals, and bonus payments it receives for production on federally owned lands. The Minerals Management Service (MMS) is the federal agency that manages the nation's mineral resources on the outer continental shelf (OCS) and collects, accounts for and disburses revenues from federal offshore leases and onshore leases on federal and American Indian lands. In addition, government agencies impose a variety of taxes and charges. FERC, for example, is authorised to recoup its entire budget appropriation through the imposition of annual charges and filing fees.

- 5 Describe the statutory and regulatory framework and any relevant authorisations applicable to natural gas exploration and production.

## Production, drilling and supply

Natural gas producers are not directly regulated by the federal government. The prices they charge are generally a function of competitive markets, and are no longer regulated by the government. State public utility commissions generally exercise regulatory authority over retail natural gas rates and consumer protection issues.

## Transmission

FERC is the primary federal regulatory agency governing natural gas transmission. FERC has jurisdiction over the regulation of interstate

pipelines and is concerned with overseeing the implementation and operation of the natural gas transportation infrastructure. In addition, FERC has primary regulatory authority to permit, site, and approve onshore LNG import terminals.

State authorities regulate substantial pipeline capacity that is considered to be ‘intrastate’.

### Distribution

State regulatory utility commissions have oversight of issues related to the siting, construction, and expansion of local distribution systems.

- FERC’s regulatory authority extends to the interstate transportation of natural gas, the importing of natural gas by pipeline or LNG import terminals, and certain environmental and accounting matters. FERC obtains its authority and directives in the regulation of the natural gas industry from a number of laws; namely the Natural Gas Act of 1938, the Natural Gas Policy Act of 1978, the Outer Continental Shelf Lands Act, the Natural Gas Wellhead Decontrol Act of 1989, the Energy Policy Act of 1992 and the Energy Policy Act of 2005.
- The Office of Pipeline Safety of the Department of Transportation (DoT) has jurisdiction over pipeline safety.
- State public utilities commissions have jurisdiction over retail pricing, consumer protection, and natural gas facility construction and environmental issues not covered by FERC or DoT.

FERC is designed to be independent from influence from the executive or legislative branches of government, or industry participants, including the energy companies over which it has oversight. FERC is composed of five commissioners, who are nominated by the president of the US and confirmed by the US Senate. Each commissioner serves a five-year term, and one commissioner’s term is up every year.

DoI and DoT are cabinet-level agencies, and their respective secretaries are chosen by the president subject to Senate confirmation.

There are several adjudicatory options for challenging or appealing decisions of the regulator. The Commission may make a decision without any further procedures, it may hold a trial-type hearing before an administrative law judge, or it may hold a technical conference or ‘paper’ hearing. Alternate dispute resolution, like mediation and arbitration, may also be used. FERC decisions may be appealed to the federal Courts of Appeal.

Where FERC is implementing a federal statute, the plaintiff must usually show that FERC’s implementation is an ‘arbitrary and capricious’ interpretation of the federal statute. This is a very high standard that is rarely satisfied. Additionally, a party must show that it has standing to bring the suit and satisfy other justiciability concerns such as ripeness and mootness.

The government authorisations required to carry on natural gas exploration and production activities depend on whether the proposed project is to be conducted on federal, state or privately-owned land, and whether it is proposed to be conducted onshore or offshore.

### Federal lands

Federal lands are managed by DoI. Within DoI, the MMS regulates offshore drilling and the Bureau of Land Management (BLM) regulates onshore drilling.

### Offshore

The MMS manages the mineral resources on the OCS generally beyond three miles from the coast, and is charged with ensuring that production and drilling on the OCS are conducted in a safe and environmentally responsible manner. DoI prepares a five-year programme that specifies the size, timing and location of areas to be assessed for federal offshore natural gas leasing. Bids are usually solicited on the basis of a cash bonus and a royalty agreement, with the highest bidder awarded the lease. Additionally, although FERC has traditionally assumed authority over OCS pipelines, the MMS

began regulating OCS pipelines in 2008, pursuant to the decision of the US Court of Appeals for the District of Columbia in *Williams Cos v FERC*. The MMS subsequently passed a final rule to ensure open access to OCS pipelines by providing complaint procedures for shippers for oil and gas produced from federal leases on the OCS who believe that they have been denied open and non-discriminatory access to an OCS pipeline.

### Onshore

BLM is charged with managing and conserving federally owned land, including the natural gas resources. Unless they are specifically carved out of the leasing programme, all BLM-managed lands and national forests are open to leasing. Gas leasing is generally not permitted in the national park system, in national wildlife refuges, in the Wild and Scenic River Systems, and in wilderness areas. Leasing in national forests requires specific permission from the Forest Service. BLM reviews and approves permits and licenses for companies to explore, develop, and produce natural gas on federal lands. Once projects are approved, BLM enforces regulatory compliance.

### State lands

Drilling on state lands is managed by State Departments of Natural Resources and related agencies. Coastal states additionally have authorisation rights over submerged lands and ‘inland waters’ within three miles of the coast. Each state has its own sets of requirements and regulations governing the leasing of such state-owned lands.

### Privately owned lands

The leasing of private land is generally left up to each individual landowner.

## Regulation of natural gas pipeline transportation and storage

- 6 Describe in general the ownership of natural gas pipeline transportation and storage infrastructure.

Pipeline transportation and storage of natural gas are conducted by the private sector. According to the EIA, there are 185 companies operating natural gas pipelines in the United States. Private companies in the US operate over 400 underground storage facilities, mainly in depleted reservoirs, aquifers and salt caverns.

- 7 Describe the statutory and regulatory framework and any relevant authorisations applicable to the construction, ownership, operation and interconnection of natural gas transportation pipelines, and storage.

Pursuant to section 7 of the NGA, interstate pipelines and gas storage facilities must obtain certification from FERC before constructing or expanding facilities. Intrastate gas transmission and distribution facilities are certificated by state and local authorities.

Under applicable statutes, FERC will issue a certificate to a pipeline if there is a benefit to the public, including compliance with environmental standards. Current FERC policy is generally to issue certificates to all pipelines that comply with the statutory standards, but to let the market decide which pipelines will be built.

- 8 How does a company obtain the land rights to construct a natural gas transportation or storage facility?

The location, construction and operation of interstate pipelines, facilities, and storage fields involved in moving natural gas across state boundaries must be approved by FERC. The pipeline company proposes the route or location, which is then reviewed by FERC. If a proposed pipeline route is on or adjacent to private land, the company will inform the private landowners and obtain any necessary rights-of-way (or alternative access rights) prior to construction. The

applicant must consider alternative routes or locations to avoid or minimise the effects on such things as buildings, fences, crops, water supplies, soil, vegetation, wildlife, air quality, noise, safety and land-owner interests. FERC staff will consider whether the pipeline can be placed near or within an existing pipeline, power line, highway or railroad right-of-way. A pipeline certified by FERC has eminent domain authority. Storage fields are usually located in depleted oil or natural gas production fields or in salt deposits.

- 9 How is access to the natural gas transportation system and storage facilities arranged? How are tolls and tariffs established?

There are essentially three major types of pipelines along the transportation route: the gathering system, the transmission pipeline, and the distribution system. The gathering system transports raw natural gas from the wellhead to the processing plant. Transmission pipelines use higher pressure and larger diameter pipes to move natural gas quickly over long distances, and are typically interstate but can be intrastate. Interstate pipelines carry natural gas across state boundaries, whereas intrastate pipelines transport natural gas within a particular state. Interstate natural gas pipeline networks transport processed natural gas from processing plants in producing regions to those locations with high natural gas requirements, particularly large, populated urban areas. Distribution systems deliver the natural gas to homes, businesses and power plants.

Transportation of natural gas is closely linked to its storage. If the natural gas being transported is not required at the time, it can be put into storage facilities for when it is needed. Natural gas pipeline companies have customers on both ends of the pipeline – the producers and processors that deliver gas into the pipeline, and the consumers and local distribution companies that take gas out of the pipeline.

In accordance with FERC rules, access to interstate natural gas transportation and storage services must be provided on a non-discriminatory basis. Generally, purchasers of gas interstate transportation and storage services negotiate individual contracts with pipeline and storage companies, which are subject to the service provider's tariff as approved by FERC. Where there is limited capacity for interstate storage or transportation, capacity is allocated through a bidding process in which the pipeline or storage capacity is generally awarded to the highest bidders. Under FERC rules, the terms and rates charged for all interstate pipeline transportation and storage services must be applied in a non-discriminatory manner, not be unduly restrictive and be fair to all parties.

- 10 Can customers, other natural gas suppliers or an authority require a pipeline or storage facilities owner or operator to expand its facilities to accommodate new customers? If so, who bears the costs of interconnection or expansion?

FERC is authorised under section 7(a) of the NGA to order a company to establish physical connection of its transportation facilities with the facilities of, and sell natural gas to, persons engaged in local distribution of natural or artificial gas to the public if FERC finds that it is 'necessary or desirable in the public interest' to do so and that 'no undue burden will be placed upon a natural gas company'. Customers and natural gas suppliers can petition FERC to order an expansion of interstate natural gas transportation facilities. FERC is prohibited from compelling the enlargement of transportation facilities, the establishment of physical connection, or the sale of natural gas if those actions would impair a natural gas company's ability to render adequate service to its existing customers. The costs of such expansion shall be considered in determining rates to be charged for service by the natural gas company.

- 11 Describe any statutory and regulatory requirements applicable to the processing of natural gas to extract liquids and to prepare it for pipeline transportation.

The processing of natural gas is largely unregulated at the federal and state levels except for applicable environmental, health, safety and related regulations. Processing facilities not directly involved in jurisdictional (interstate) transportation of gas are generally exempt from FERC jurisdiction.

- 12 Describe the contractual regime for transportation and storage.

Each pipeline and storage company providing gas transportation and storage services subject to FERC jurisdiction is required to file and obtain FERC approval of a tariff for such services. Each tariff contains the general terms and conditions of service, rate schedules and form agreements. General terms and conditions in both transportation and storage tariffs typically address priority and curtailment of service; nominations and scheduling; receipt and delivery points; quality and pressure; title and risk of loss; measurement; fuel reimbursement; and balancing. Transportation rate schedules typically set forth maximum and minimum rates for the various types and classes of service, and mutually agreed recourse rates that are no less than the minimum tariff rate.

Contracts for intrastate transportation and storage of natural gas can also be privately negotiated. In many states, these contracts are subject to the provider's tariff that has been filed with a state governmental authority, but typically do not require advance approval.

#### Regulation of natural gas distribution

- 13 Describe in general the ownership of natural gas distribution networks.

In addition to interstate and intrastate pipeline companies, which deliver natural gas directly to primarily large-volume users, natural gas local distribution companies (LDCs) transport gas to specific customer groups. In 2006, 257 LDCs classified themselves as investor-owned, 931 as municipals, 104 as privately owned and 15 as cooperative. Even though the number of municipal LDCs far exceeded the number of investor-owned LDCs, investor-owned LDCs supplied over 90 percent of the total volume of natural gas deliveries for 2006.

- 14 Describe the statutory and regulatory structure and authorisations required to operate a distribution network. To what extent are gas distribution utilities subject to public service obligations?

The operation of a local distribution network by an LDC is governed by the state regulatory authority with jurisdiction where the facilities are located. The LDC may be required to obtain certificates of convenience and necessity to serve in the state and comply with all applicable safety regulations. The territories granted to LDCs are typically exclusive.

Service by LDCs is generally required to be non-discriminatory and at rates approved by the state regulatory authority. While each LDC retains the right to disconnect service for non-payment, those rights are subject to consumer protection regulations in most jurisdictions. However, LDCs are protected in most states by an implied right to obtain a reasonable rate of return on their investments.

- 15 How is access to the natural gas distribution grid organised? Describe any regulation of the prices for distribution services. In which circumstances can a rate or term of service be changed?

State and federal regulatory agencies have authority over access to the natural gas distribution grid and, as a result, the requirements differ from state to state. Generally, LDCs are granted the exclu-

sive right to serve customers within a geographic area. An LDC has the benefit of a known customer base, but is also subject to rate regulation and an obligation to provide service. In many states, large customers have the ability to bypass the LDC with respect to the purchase of gas because of their ability to buy in significant quantities; however, even these customers will need to avail themselves of the LDC's distribution services. In some circumstances, large retail customers can receive service directly from interstate pipelines through FERC-approved laterals, thus bypassing the LDC completely.

Privately owned LDCs generally have their rates determined by the state regulatory authority, but the rates of publicly owned LDCs are normally set by the LDC's governing body. Rates typically allow the LDC a reasonable return on investment, based on the cost of providing service. Bundled rates include fees for access to the distribution system.

Periodic adjustments may be made to rates and terms of service, either at the LDC's request or by order of the governing state regulatory authority. Changes are typically made on the basis of changes in operating costs or the applicable law. New capital investments may also be the basis for a rate increase request.

- 16** May the regulator require a distributor to expand its system to accommodate new customers? May the regulator require the distributor to limit service to existing customers so that new customers can be served?

If an LDC has been granted an exclusive right to serve within a particular geographic area by state law, it will also generally be required to extend its system to serve new customers within that area, if it can do so without jeopardising the service provided to existing customers. The process for expanding an existing system (including issues such as the manner in which costs of expansion are recouped) is set forth in state statutes or regulations.

- 17** Describe the contractual regime in relation to natural gas distribution.

Most contracts for natural gas distribution are either established by a filed tariff or bilateral service agreements with terms specific to the customer being served with respect to terms such as quantity of the commodity and the type of service. However, certain terms of service will likely be the same for all customers of the LDC in the same class. There is typically little flexibility for negotiation for individual customers with respect to the terms of a service agreement.

### Regulation of natural gas sales and trading

- 18** What is the ownership and organisational structure for the supply and trading of natural gas?

Natural gas is supplied and traded by private-sector companies, pursuant to privately negotiated transactions. These companies can be privately or publicly owned and range in size from entrepreneurs to very large organisations, but counterparties value creditworthiness and staying power in their trading partners.

- 19** To what extent are natural gas supply and trading activities subject to government oversight?

Under the current regulatory regime, only pipelines and LDCs are directly regulated. Interstate pipeline companies are regulated in the rates they charge, the access they offer to their pipelines, and the siting and construction of new pipelines. Similarly, LDCs are regulated by state utility commissions, which oversee their rates and construction issues, and which ensure that proper procedures exist for maintaining adequate supply to customers.

While there is no direct government agency charged with direct day-to-day oversight of natural gas producers and marketers,

producers and marketers must still comply with other laws including authorisation and permitting requirements.

The trading of natural gas is largely market-driven; however, rules are in place to ensure that the market is operated fairly. FERC has also implemented 'anti-manipulation' rules that prohibit fraudulent or deceptive practices and omissions or misstatements of material facts, in connection with purchases or sales of natural gas or transportation services subject to FERC jurisdiction.

The Commodities Futures Trading Commission (CFTC) regulates natural gas futures to prevent similar abusive trade practices. On 26 January 2010, the CFTC provided notice of a proposed rulemaking which would implement speculative position limits for natural gas futures and option contracts (see [www.cftc.gov/ucm/groups/public/@lrfederalregister/documents/file/2010-1209a.pdf](http://www.cftc.gov/ucm/groups/public/@lrfederalregister/documents/file/2010-1209a.pdf) for further information). This proposed rulemaking was a response to a 2008 amendment to the Commodities Exchange Act, and to a series of hearings held in the summer of 2009 to 'discuss energy position limits and hedge exemptions'.

- 20** How are physical and financial trades of natural gas typically completed?

There are two primary types of natural gas marketing and trading: physical trading and financial trading. Physical trading is the buying and selling of natural gas. Financial trading, on the other hand, involves derivatives and other financial instruments where the buyer and seller never take physical delivery of the natural gas. The North American Energy Standards Board (NAESB) serves as an industry forum for the development and promotion of standards for natural gas and electricity markets.

Physical trading contracts are negotiated between buyers and sellers. There are numerous types of such contracts but they normally contain standard terms, such as specifying the buyer and seller, the price, the amount of natural gas to be sold, the receipt and delivery points, and the term of the contract. Additional terms and conditions outline the payment dates, quality specifications and any other provisions agreed to by both parties.

There is a significant market for natural gas derivatives and financial instruments in the US. It has been estimated that the value of trading that occurs on the financial market is 10 to 12 times greater than the value of physical natural gas trading.

Natural gas derivatives are traded on the New York Mercantile Exchange (NYMEX) and other exchanges. One of the most common derivatives is a futures contract that requires the seller to deliver and the buyer to take delivery of the natural gas at the contractually agreed price, in a specified future month. The price to be paid in the future month when the contract matures is determined at the time the contract is sold. Other natural gas derivatives include options contracts, calendar spread options and basis swap futures contracts. In addition to the derivatives available on NYMEX, other derivatives are traded in over-the-counter (OTC) markets.

The International Swaps and Derivatives Association (ISDA) has created a standard contract (the ISDA master agreement) for OTC derivatives transactions, which can be used for physical and financial trades as well. The ISDA master agreement contains general terms and conditions, such as provisions relating to payment netting, tax gross-up, tax representations, basic corporate representations, basic covenants and events of default and termination, but does not include details of any specific derivatives transactions the parties may enter into. Details of individual derivatives transactions are included in 'confirmations' entered into by the parties to the ISDA master agreement. Each confirmation sets out the agreed commercial terms of a particular transaction.



- 21** Must wholesale and retail buyers of natural gas purchase a bundled product from a single provider? If not, describe the range of services and products that customers can procure from competing providers.

In Order No. 636, FERC required interstate pipelines to separate or unbundle their services for gas transportation and sales. Regulators in many states have also required LDCs to offer unbundled sales and transportation services for large customers located in their distribution systems. As a result, LDCs, large industrial customers, and electric utilities can now buy gas directly from producers or marketers in a competitive market; contract with interstate pipelines for transportation; and separately arrange for storage and other services formerly provided by interstate pipelines or LDCs (such as nominating, balancing, parking, loaning, metering and billing) from marketers, market centres, hubs, storage operators, and other third-party providers.

Some state regulatory agencies allow smaller-volume customers to participate in aggregation programmes in order to purchase unbundled services. As of December 2008, 21 states and the District of Columbia have allowed residential consumers and other small users to purchase natural gas from suppliers other than LDCs. Such customers are typically offered unbundled services on a limited basis through an intermediate marketer who ‘rebundles’ the services and offers them as a competitively priced alternative. Where unbundled LDC services are available, some states require the smaller customers to purchase a standby service from the LDC. Although nearly 35 million of the approximately 65 million residential gas customers in the US have access to choice programmes, currently 13 per cent (4.7 million) are participating in such programmes – a modest increase from 2007 (4.4 million).

#### Regulation of LNG

- 22** What is the ownership and organisational structure for LNG, including liquefaction and export facilities and receiving and regasification facilities?

All currently operating US LNG facilities are ultimately owned by US or foreign private companies. Ownership structures vary from project to project and may include direct ownership by a single entity, joint ventures among two or more parties, or many other possible structures. Terminals may be operated either on a ‘tolling’ basis, where the terminal operator does not take title to the hydrocarbons, or with passage of title to or from the terminal operator or owners before or after completion of the regasification process.

- 23** Describe the regulatory framework and any relevant authorisations required to build and operate LNG facilities.

For offshore LNG facilities, the US Coast Guard (the USCG) and the Maritime Administration (MARAD) of DoT have joint authority over the application process. In accordance with the National Environmental Policy Act (NEPA) and the Deepwater Port Act of 1974 (the DPA), the USCG oversees the preparation and review of an environmental impact statement, which addresses the environmental impact that a proposed offshore facility would have on the environment.

MARAD has ultimate jurisdiction for approving or denying an application to construct and operate an offshore LNG facility. Its decision is based on input from the USCG and several other federal agencies, including the Environmental Protection Agency (the EPA), DoI’s MMS and the US Army Corps of Engineers.

Also, the DPA provides that the governor of a state adjacent to the proposed offshore facility must approve of the facility.

For onshore LNG facilities – which represent the majority of existing and proposed facilities in the US – the NGA confers on FERC the authority to approve or deny an application to develop an LNG terminal. While FERC has ultimate decision-making authority, several other federal, state and local agencies play a role in the process. These agencies include the USCG, with respect to marine transit

issues relating to LNG tankers, the US Army Corps of Engineers, DoI and the EPA with respect to environmental impacts, and the Office of Pipeline Safety with respect to issues relating to siting, design, construction, testing, operation and safety of the facilities (including any pipelines associated with such facilities). Various state and local land, environmental, wildlife and historical preservation agencies also play a role in approving or denying a proposed facility.

- 24** Describe any regulation of the prices and terms of service in the LNG sector.

LNG terminals built after the passage of the Energy Policy Act of 2005 are not required to offer open access to any qualified customer. The owner of the terminal may offer access to customers of its choosing at prices and on such terms and conditions as may be agreed between the owner and the customer, which terms are generally reflected in a terminal use agreement between the terminal owner and the customer. However, open access requirements do still apply to pipelines transporting regasified LNG from LNG terminals in the US.

#### Mergers and competition

- 25** Which government body may prevent or punish anti-competitive or manipulative practices in the natural gas sector?

Prohibitions of anti-competitive and manipulative conduct are found in federal and state laws of general application (called ‘anti-trust laws’ in the US), and in the laws and regulations applicable to public utilities in particular. The antitrust laws include the Sherman Act (combinations in restraint of trade, monopolisation), the Clayton Act (mergers, exclusive dealing) and the Robinson-Patman Act amendments to the Clayton Act (discrimination on price and other terms of sale), and are enforced at the federal level by the Federal Trade Commission (FTC) and the antitrust division of DoJ; the FTC may also enjoin unfair acts of competition under the Federal Trade Commission Act (FTC Act). Many states have analogues to some or all of the federal antitrust laws, and some of the state laws have particular application to petroleum products, including natural gas. The main federal and state antitrust laws are also enforced by state attorneys general, local governmental bodies and in some cases by private parties injured by the conduct in question.

The governmental bodies responsible for regulation of public utilities enforce their own rules, particularly FERC and the various state public utilities commissions (PUCs). FERC created its own Office of Enforcement (superseding the former Office of Market Oversight and Investigations) with responsibility for identifying and taking action against fraud and anti-competitive practices in electricity and gas sectors. The Energy Policy Act of 2005 broadened the scope of FERC’s rule-making and enforcement authority under the NGA to prevent market manipulation. Competition principles also inform the review and approval by these bodies of the rates and terms and conditions of tariffs for interstate and intrastate transportation and storage service.

- 26** What substantive standards does that government body apply to determine whether conduct is anti-competitive or manipulative?

The antitrust laws generally draw a distinction between conduct that is highly likely to be anti-competitive without redeeming justification and per se unlawful (eg, cartels), and conduct whose anti-competitive effects must be examined and weighed against any justifications, employing a ‘rule of reason’. The definition of the relevant geographical and product market, and measures of industrial concentration within that market, must be evaluated under the rule of reason and for other antitrust laws dealing with market power and monopolisation offences. The FTC Act and similar acts enjoining unfair competition employ a wider variety of standards that may not fall within the

**Update and trends**

After the enactment of the Energy Policy Act of 2005, it was widely believed that FERC would increase its enforcement activities to levels commensurate with its new authority under the Act. While the organisation has been becoming steadily more active since 2005, 2009 could be considered the year FERC fully embraced its enforcement powers and obligations. In its annual enforcement report, it identified four key enforcement focus areas:

- fraud and market manipulation;
- reliability standard violations;
- anti-competitive behaviour; and
- conduct that threatens market transparency.

Of particular importance for those involved in the natural gas markets, however, is not the enforcement focus areas themselves; rather, the most significant consequence is that every enforcement action listed in the enforcement report is a 'civil penalty enforcement action' that was undertaken against an entity involved in the natural gas industry.

The alleged violations ran the gamut from market manipulation to violations of the capacity release rules, and the settlements included civil penalties running into the millions, as well as the disgorgement of unjust profits. Some entities were also required to file compliance reports at regular intervals to assure FERC of their intent to comply with applicable regulations going forward. While self-reporting of violations was prevalent, there was no clear correlation between self-reporting and decreased civil penalty amounts.

In light of the increased attention being paid to enforcement activities, FERC is attempting to provide more transparency regarding its enforcement actions. The agency has recently adopted policies allowing public disclosure of notices of violations in non-public investigations and requiring FERC staff to provide exculpatory evidence to entities that are the subject of FERC enforcement actions. As FERC continues to refine its enforcement policies and practices, natural gas industry participants should pay close attention to enforcement developments in order to avoid becoming a FERC enforcement target.

scope of specific laws, potentially including manipulation of prices or price indices.

**27** What authority does the government body have to preclude or remedy anti-competitive or manipulative practices?

All of the federal and state antitrust enforcement agencies have power to seek monetary damages and a variety of equitable remedies for violation of the laws they are authorised to enforce; many of these laws carry criminal penalties, and damages can be trebled or otherwise subject to increase for punitive or exemplary purposes. Federal and state agencies have the power to revoke authorisations for market-based rate-making in the event that an entity is found to have engaged in anti-competitive practices. Violations of an unfair competition law are ordinarily subject to an injunction but a violation of that injunction can result in fines. Private parties can seek damages for injuries to them occasioned by violation of the laws, and in some cases can bring class actions for others similarly situated.

Pursuant to the Energy Policy Act of 2005, FERC has the authority to issue rules to inhibit market manipulation and to facilitate price transparency in natural gas markets. FERC has recently instituted regulations that require certain gas market participants to annually report information regarding their wholesale, physical natural gas transactions; their reporting of transactions to price index publishers; and their blanket certificate status. Similar regulations require interstate and certain major non-interstate pipelines to post capacity, daily scheduled flow information and daily actual flow information.

In addition, the Energy Policy Act of 2005 confers greater enforcement authority to FERC in order to prevent market manipulation. FERC has the ability to seek injunctions prohibiting those who have engaged in energy market manipulation from further engaging in activities subject to FERC's jurisdiction. The Act also increases the maximum civil penalties to US\$1 million per violation per day, and increases the maximum criminal penalties to US\$1 million per violation and up to five years' imprisonment.

**28** Does any government body have authority to approve or disapprove mergers or other changes in control over businesses in the sector or acquisition of production, transportation or distribution assets?

Mergers and certain changes in control are subject to notification to the FTC and DoJ under the Hart-Scott Rodino Antitrust Improvements Act of 1976, as amended (HSR Act). (Natural gas transactions are usually reviewed by the FTC.) The reportability of a transaction depends on the size of the transaction and in certain circumstances the size of the parties thereto. A higher threshold exists for acquisitions of natural gas and oil reserves and associated production assets, including gathering pipelines; that minimum is US\$500 million. For

midstream and downstream transactions, transactions greater than US\$63.4 million may require review. The structure of the transaction – whether a merger, contributions to an existing business, or other forms – can also affect whether the deal is reportable.

The purpose of the requirements is to provide the enforcement agencies with the information needed to evaluate whether the combination would violate the antitrust laws, and the time needed to seek an injunction in court barring the deal from proceeding. The parties ordinarily may not consummate the transaction until 30 days after the filing (though the agencies can make a second request for more information and stop the clock while the additional information is assembled and delivered). For non-controversial transactions, as is typical in the upstream sector, the agencies grant an early termination of this waiting period, and a merger can be completed in two weeks from the filing. For controversial transactions, the agencies may signal their willingness to enter into a consent decree conditioned on certain divestitures or promises to engage or refrain from engaging in certain acts; or the parties can enter into sustained negotiations or litigation occupying months. Moreover, the agencies can forego the opportunity to enjoin the merger and instead challenge it long after the deal has closed. This has occurred several times in the energy sector.

FERC itself has limited grounds for reviewing mergers in the natural gas sector. In some cases, FERC action must be taken for issuance or revision of certificates of public convenience and necessity, or for abandonment of assets under the NGA.

**29** In the purchase of a regulated gas utility, are there any restrictions on the inclusion of the purchase cost in the price of services?

The purchase of a regulated gas utility is subject to state regulation. Upon purchase of a regulated utility, most states will set rates based on the net book value of facilities instead of the purchase price. Additionally, states typically bar the inclusion of any acquisition premium in rates.

**30** Are there any restrictions on the acquisition of shares in gas utilities? Do any corporate governance regulations or rules regarding the transfer of assets apply to gas utilities?

With the repeal in 2005 of the Public Utility Holding Company Act of 1935, there are no general federal prohibitions on entities that may own a gas utility company or requirements for registration with the Securities and Exchange Commission (SEC). However, acquisition of assets that have been dedicated to use by public utilities is often also subject to review and approval by the state commission with jurisdiction. An example is section 851 of the California Public Utilities Code, requiring approval by the California Public Utilities Commission.

**International**

- 31** Are there any special requirements or limitations on foreign companies acquiring interests in any part of the natural gas sector?

There are no special requirements or limitations on foreign companies acquiring interests in the natural gas sector. However, an entity applying for certification of a liquefied natural gas facility under section 3 of the NGA and the regulations issued pursuant to that section by FERC is required to disclose on the application any ownership by a foreign government or subsidisation by a foreign government. In addition, under the Exon-Florio Amendment to the Defense Production Act of 1950, the Committee on Foreign Investment in the United States (CFIUS) reviews proposed foreign investments in US facilities to determine whether such investment threatens US national security. Exon-Florio was amended by the Foreign Investment and National Security Act of 2007 (FINSA) and now expressly treats 'energy security' and 'critical infrastructure' as falling within the concept of national security; the law now mandates full-scale CFIUS review where the proposed purchaser is owned by a foreign government. Finally, there are other laws applicable to the natural gas industry restricting foreign ownership, including the Mineral Lands Leasing Act, which forbids aliens and foreign corporations from directly owning mineral leases on federal lands.

- 32** To what extent is regulatory policy affected by treaties or other multinational agreements?

While treaties and other multinational agreements have little direct effect on purely domestic US gas regulatory policies, they do have an effect on international importing, exporting and trading of natural gas. Multilateral agreements entered into by the US and other members of the World Trade Organization (WTO) typically dictate how WTO members may treat goods exported from other WTO members, including gas and other petroleum products.

However, in the event of a conflict between a regional trade agreement and a WTO trade agreement, the regional trade agreement preempts the WTO trade agreement. For example, the North American Free Trade Agreement (NAFTA) allows for duty-free imports and exports of gas among the US, Canada and Mexico.

- 33** What rules apply to cross-border sales or deliveries of natural gas?

The NGA prohibits the import or export of natural gas to or from the US without obtaining the prior approval of the Department of Energy (DoE). The DoE offers two types of import and export authorisations: long-term authorisation and 'blanket' (short-term) authorisation.

Long-term authorisation must be sought by a party wishing to import or export natural gas pursuant to a signed gas purchase and sale contract that has a term longer than two years. The applicant must submit to the DOE: an application, a copy of the gas purchase and sale contract identifying the seller of the gas and the markets in which the gas will be sold, and the term of the contract.

Vessels that are importing LNG into the US are deemed to pose a special security risk. The USCG and the US Bureau of Customs and Border Protection scrutinise such vessels more so than many other vessels importing cargo into the US, which often results in delays in the delivery and unloading of LNG.

Like most goods imported into the US, gas imports are subject to US customs regulations. While many of these regulations apply uniformly across products, in the case of bulk petroleum imports certain additional information is required in order for imports to be cleared by customs.

**Transactions between affiliates**

- 34** What restrictions exist on transactions between a natural gas utility and its affiliates?

In October 2008, after a state of flux, FERC issued Order No. 717, which amended the Standards of Conduct governing, among other things, transactions by jurisdictional natural gas transmission providers and their affiliates. Order No. 717 designed new rules to foster compliance with the Standards of Conduct, to facilitate enforcement by the commission and to conform the rules to the 2006 decision of the US Court of Appeals (DC Circuit) in *National Fuel Gas Supply Corporation v FERC*. The standards now have three principal rules:

- the 'independent-functioning rule', which requires employees handling transmission functions and employees handling marketing functions (such as commodity sales) to operate independently of each other;

**pillsbury**

**Joseph H Fagan**  
**Michael S Hindus**  
**Robert A James**  
**Julie D Hutchings**

**joseph.fagan@pillsburylaw.com**  
**michael.hindus@pillsburylaw.com**  
**rob.james@pillsbury.law**  
**julie.hutchings@pillsburylaw.com**

50 Fremont Street  
San Francisco, CA 94105  
United States  
Tel: +1 415 983 1000  
Fax: +1 415 983 1200

2 Houston Center, 909 Fannin Street  
Houston, TX 77010  
United States  
Tel: +1 713 276 7600  
Fax: +1 713 276 7673

2300 N Street, NW  
Washington, DC 20037  
United States  
Tel: +1 202 663 8000  
Fax: +1 202 663 8007

[www.pillsburylaw.com](http://www.pillsburylaw.com)

- the ‘no-conduit rule’, which prohibits employees of a transmission provider from passing information about transmission functions to marketing function employees; and
- the ‘transparency rule’, which imposes streamlined posting requirements on transmission providers to help FERC and other interested parties detect any instances of undue discrimination or preference.

**35** Who enforces the affiliate restrictions and what are the sanctions for non-compliance?

FERC has enforcement authority with respect to its regulations governing transactions between a natural gas utility and its affiliate. It has the ability to impose sanctions that could include restrictions or revocation of operating authority and the right to impose civil penalties.

*\* The authors thank Deborah Carrillo and Ada Chen for their assistance with this year’s update of the US chapter.*



## **About Pillsbury's Energy Practice**

Pillsbury has advised on precedent-setting energy industry deals and projects in 75 countries worldwide, offering clients a combination of geographic reach, legal and regulatory depth, and energy-sector-specific experience that is unmatched among the world's leading law firms.

### **An Energy Industry Powerhouse**

Pillsbury's strategic mergers over the past 10 years have brought together three top energy teams, creating one of the legal industry's largest and most preeminent practices. We have led large-scale energy projects and their financings in every major world market, providing the big-picture and small-detail experience that we bring to every client engagement.

### **Sector-Specific Smarts**

We are one of only a few law firms serving the industry across all fuel lines, from petroleum and natural gas to nuclear and renewables. As a result, we offer our energy clients deep industry experience in oil and gas, LNG, and all forms of power—whether generated from gas, hydro, coal, nuclear or renewable sources.

### **The Leading Edge for Cross-Border Work**

Our closely integrated team covers the world's energy and finance capitals and is backed by an extensive network of host-country law firm contacts, enabling us to provide flexible and efficient legal counsel wherever—and whenever—you need it. More than half of our work is international, including assistance to inbound clients on U.S. regulatory requirements as well as projects encompassing operations or investments in Canada, various Gulf States, India, Japan, Korea, Mexico, Pakistan, Russia and other locations in Africa, Asia, Europe and South America.

## **About Our Firm**

Pillsbury is a full-service law firm with market-leading strengths in the energy, financial services, real estate and technology sectors. With offices in the world's major financial and technology centers, we counsel clients on all aspects of global transactions and litigation. Our multidisciplinary teams allow us to anticipate trends and offer a 360-degree perspective on complex business and legal issues—helping clients take greater advantage of opportunities and better mitigate risk.

To learn more, visit [www.pillsburylaw.com](http://www.pillsburylaw.com).

