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ENERGY & UTILITIES

Special Edition 2019



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THIS SPECIAL EDITION OF THE LEXIS Practice Advisor Journal focuses on the practice of Energy & Utilities law. The articles highlight the breadth of the practice across both established and emerging energy generation and exploration technologies. But, more than this, the articles emphasize the importance of understanding and staying abreast of state and federal regulation across all areas of energy law practice—even when one's practice only periodically intersects with energy law.

Capital markets practitioners often have interactions with energy law, as energy companies of all types demand financing

at all stages of their life cycles. Covington & Burling attorneys contribute a Clean and Renewable Energy Industry Guide for capital markets practitioners, explaining not only the renewable energy practice area itself, but also securities laws and underwriting and stock exchange guidelines applicable to the industry.

Financial regulations, while important, are not the sole concern of energy practitioners. Environmental concerns loom large in upstream, midstream, and downstream oil and gas operations. This issue provides practical guidance around compliance with federal environmental regulations affecting oil and gas operations nationwide. And, because environmental risk seeps into deal terms, attorneys at Weil, Gotshal & Manges discuss the allocation of environmental risk in various transaction agreements.

This issue also includes an excellent article submitted by Reed Smith discussing oil and gas M&A best practices, as they continue to change throughout 2019, and beyond. Learn about new trends, and how your practice can keep up with evolving times, and fast-paced legal and business transformation, as the global energy climate shifts around us.

Finally, this issue includes an article discussing climate change considerations as they relate to M&A transactions in the 21st century economy. From regulatory and compliance concerns, to property and supply chain risk, customer and investor

considerations, and potential litigation exposure, this article will help the energy practitioner evaluate hazards faced by clients, both small and large. Given the enormity of the issues at play, this type of due diligence is no longer limited to deals involving power plants and heavy industry, but can even affect small upstream energy deals in both the conventional and renewable energy fields. Learn how you can conduct a preliminary assessment to protect your clients from climate change risk.

We hope you enjoy this Energy & Utilities law issue of the Lexis Practice Advisor Journal, and that you will apply the tools and practical guidance within it and within Lexis Practice Advisor online to enhance your individual practice.

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Will More States Follow California on Deal with Automakers?

BYPASSING THE TRUMP ADMINISTRATION, CALIFORNIA has reached agreement with four of the world's largest automakers to improve fuel efficiency and reduce automobile emissions that contribute to global warming.

And more are likely to follow.

"This is about leadership, California asserting itself once again, and about automobile manufacturers, to their credit, doing the right thing," California Gov. Gavin Newsom (D) said at a briefing announcing the deal struck with Ford, Honda, BMW, and Volkswagen.

The voluntary agreement, announced in July, notably "recognizes California's authority." It will allow the Golden State and 14 other states that accept its air pollution rules to continue with most of the regulations on auto emissions agreed to in 2012 by the Barack Obama administration, California, and the carmakers.

The Environmental Protection Agency (EPA) under President Donald Trump rejected California's request to continue with the Obama-era standards. The agreement between California and the four automakers, which together have about 30% of the U.S. car market, is an end run around this rejection.

The agreement benefits the carmakers by enabling them to avoid a nightmare scenario of having to manufacture cars for multiple markets and gives them an extra year to reach the greenhouse gas emission standards agreed to in 2012.

"These terms will provide our companies much-needed regulatory certainty by allowing us to meet both federal and state requirements with a single national fleet, avoiding a patchwork of regulations while continuing to ensure meaningful greenhouse gas emissions reductions," the automakers said in a joint statement.

The agreement was denounced by Michael Abboud, a spokesperson for the EPA, as "a PR stunt" that will have no impact on the agency's plan to issue new relaxed national emissions standards. But climate experts and Gov. Newsom hailed the agreement as a game changer.

"I cannot recall another instance in which a state or state coalition has negotiated this kind of an arrangement with industry to out-flank the federal government," said Barry Rabe, a professor of public policy at the University of Michigan and an expert on climate issues.

California Air Resources Board chief Mary Nichols said the agreement could set a precedent for further cooperation between states and industry.

"If other states take a strong line on environmental standards where they have a particular resource or sensitive area, they may be able to get industry to go along even when the federal government wants weaker standards," said Nichols. "I am thinking about Florida and the Everglades where the Interior Department backed off on a proposal to lease oil drilling after the state objected and industry signaled they didn't really want to bid on these leases."

The states that accept California emissions standards are Colorado, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington, as well as the District of Columbia. Canada has also agreed to abide by the California standards.

Under the Trump administration, the EPA and the National Highway Traffic Safety Administration want to freeze fuel economy standards at the current 37 mile-per-gallon fleet average target for 2020 through 2026.

The Obama administration in 2012 set a fleet average goal of 51 miles-per-gallon by 2026 although that number could be adjusted based on the mix of vehicles an automaker sold.

Under the agreement with California, Ford, Honda, Volkswagen, and BMW pledge to improve their fleet averages by 3.7% each year, or slightly less than the standards set under the Obama administration.

Rabe observed that the four companies had "already made a strong commitment to electric vehicles" (EV) and might therefore find the new agreement more attractive than firms which are not promoting fuel-saving electric cars. Ford and Volkswagen announced a new EV-based partnership days before the California announcement.

Days after the agreement was reached, a dozen states—California, Connecticut, Delaware, Maryland, Massachusetts, New Jersey, New York, Oregon, Illinois, Rhode Island, Vermont, and Washington—and the District of Columbia banded together to file suit against the Trump administration for easing penalties on carmakers that don't meet the higher fuel standards. A second suit was filed by the Sierra Club and the Natural Resources Defense Council.

The auto industry as a whole is worried that the Trump administration's standards, which have yet to be spelled out in EPA guidelines, will lead to lawsuits and the likelihood that car manufacturers will have to make one kind of vehicles for states that accept the California emission standards and another for states that do not. This prompted 17 automakers in June to send a letter to President Trump warning of "an extended period of litigation and instability" should his plans be implemented.

This conflict over fuel efficiency comes at a time when state climate policy is increasingly diverging along party lines. Democratic-controlled states are setting forward-looking clean energy goals, while Republican-controlled states are standing still or even reducing fuel efficiency goals.

A bill passed late in July in Ohio by a Republican-controlled legislature and signed into law by Gov. Mike DeWine (R) provides more than \$1 billion in subsidies for power plant owners and reduces Ohio's 12.5% renewable energy standard to 8.5%.

In contrast, New York State, where the legislature and the governorship are in Democratic hands, recently adopted one of the nation's most ambitious climate targets. The Empire State's goal is 100% carbon-free electricity by 2040 and economy-wide, net-zero carbon emissions by 2050.

In 2018 California and Hawaii established goals of relying entirely on zero-emission energy sources for electricity by 2045.

Other Democratic-controlled states that have since adopted targets of obtaining their electricity from carbon-free sources such as wind, solar, or nuclear by midcentury are Colorado, Maine, Nevada, New Mexico, and Washington.

Such state actions were encouraged during the Obama presidency by the Clear Power Plan, announced by the EPA in 2014, which sought to reduce emissions from the carbon sources by 32% below 2005 levels by 2030, which the Union of Concerned Scientists called "a modest but important first step."

President Trump, who denies that the planet is warming, has replaced the Clean Power Plan with a rule that allows states to set their own power plant standards.

Historically, climate issues did not divide on party lines. In the 1960s smog had become so pervasive and even deadly in Southern California that Republican Gov. Ronald Reagan and legislators agreed to curb tailpipe emissions. In 1967 they created the California Air Resources Board (CARB).

Three years later Congress passed and President Richard Nixon signed the Clean Air Act, which recognized California's efforts, and authorized the state to set its own separate and stricter-

than-federal vehicle emissions regulations to address the unique circumstances of population, climate, and topography that generated what was then the worst air in the nation.

Under eight presidents from 1968 to 2017 California has been granted 107 waivers by the EPA to take actions to combat air pollution. Many of these actions became federal standards. Only nine waiver requests were denied, most for minor technical reasons, according to a study by Rabe. The refusal by the Trump administration to allow California to use the fuel efficiency standards of the Obama administration is the first reversal of a waiver request from the state.

In 2006, California Gov. Arnold Schwarzenegger, a Republican, signed the Global Warming Solutions Act, which made CARB responsible for monitoring and reducing greenhouse gas emissions that cause climate change.

There are current Republican officeholders who believe it is the government's duty to address climate issues. These include the Republican governors of Maryland, Massachusetts, and Vermont, three of the 14 states that adhere to the California standards of fuel efficiency.

"We have many advantages in the fight against global warming, but time is not one of them," another Republican said. "We stand warned by serious and credible scientists across the world that time is short and the dangers are great. The most relevant question now is whether our own government is equal to the challenge."


This was John McCain, running for president in 2008.

McCain had the federal government in mind, but in 2019 it is state governments that are rising to the challenge he described.

States have long experimented with creative solutions to the public issues of the day, fulfilling their mission as "laboratories of democracy," to use the famous phrase of Supreme Court Justice Louis Brandeis.

The agreement between California and the four carmakers is a different kind of experiment. If Mary Nichols is right, it could set a precedent for the way in which state governments can work with industry to address a global issue.

- Lou Cannon, *State Net Capitol Journal*

 **RESEARCH PATH:** [Energy & Utilities > Energy & Environmental Regulation > Environmental Regulations > Articles](#)

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Climate Change Considerations in M&A Transactions

Introduction

Climate change is arguably the most high-profile and rapidly evolving environmental issue facing the global business community today. Governments of nearly every nation have acknowledged the risks posed by a warming climate and have taken some action either to combat those risks, to mitigate the physical effects of climate change, or both. In addition, many corporations have publicly announced efforts to reduce emissions of greenhouse gasses (GHGs) associated with their operations and to otherwise take steps to combat climate change. Companies involved in certain mergers and acquisitions need to be aware of the risks related to climate change that may arise in the transactional context. While not every deal will involve climate change-related diligence, more and more industries are becoming subject to regulations and legal actions aimed at combatting climate change. Others have found that a changing climate may present direct risks to property and supply chains. And many companies have taken to marketing themselves as climate-friendly organizations in an effort to attract businesses and investment, creating a risk that failure to live up to their claims could prove off-putting to customers and investors and possibly result in legal liability. In order to properly assess and value corporate assets in M&A transactions, buyers and sellers of regulated assets need to understand the potential impact of climate change on business and successfully anticipate developments in this rapidly evolving area of law and policy.

There is no set formula for assessing climate risk in the transactional context. Due diligence will need to be tailored to the target and will vary substantially depending on the industry and the location of the target's operations. That said, risks associated with climate change generally fall into one of four categories: physical risks, customer and investor considerations, compliance risks, and litigation risks, each of which is discussed in more detail below. Given the potential enormity of the issues presented by climate change, and the wide-ranging efforts taken in response, climate change due diligence is no longer limited to deals involving power plants and heavy industry. At a minimum, parties in nearly every M&A transaction should conduct a preliminary assessment to determine whether any or all of these categories of risk are present with respect to a target.

Physical Risks

While perhaps the most difficult to assess, climate change's most obvious risks relate to disruptions to a company's business or damage to a company's assets (e.g., facilities, infrastructure, land, or resources) due to physical impacts, such as rising sea levels, more extreme storms, floods, fires, and drought. Recent destructive hurricane seasons and the forest fires that have blazed across the western United States serve as a reminder of the devastation that

can be caused by natural disasters, the prevalence and intensity of which some are attributing to climate change. Although it can be argued that virtually every sector of the U.S. economy faces risks for the short- and long-term physical effects of climate change, it appears likely that certain sectors will be disproportionately impacted. For example, the agriculture sector faces greater risks associated with water scarcity, droughts, and other changing weather patterns, as well as increased exposure to new pests and diseases.

Likewise, due to climate change, the tourism industry is vulnerable to increased weather extremes, rising temperatures, coastal erosion, droughts, and changes in precipitation patterns and snow reliability. The insurance industry, perhaps more than any other, faces increased risks from virtually all physical impacts of climate change. At meetings at the United Nations in 2015, top insurers called on governments to step up global efforts to build resilience against natural disasters exacerbated by climate change and highlighted that average economic losses from disasters in the last decade amounted to around \$190 billion annually, while average insured losses were at about \$60 billion.

Assessing the physical risks posed by climate change can be extraordinarily difficult, given the randomness of natural disasters and the vicissitudes in weather. Droughts, hurricanes, floods, and fires are nearly impossible to predict with any certainty. That said, it is becoming easier in certain circumstances to observe trends, particularly with respect to rising sea levels. For example, a recent study by the University of Miami found that Miami Beach flooding events have increased significantly over the last decade due to an acceleration of sea-level rise in South Florida.¹ Thus, should a target company hold significant assets in South Florida, or in any other coastal area experiencing increased flooding, a potential buyer would be wise to assess what impacts such flooding could have on the target's operations and assets. Likewise, tourism-based assets such as ski or beach resorts may have a limited carbon footprint yet face substantial physical risks due to warmer long-term temperatures or rising sea levels. A recent study by the European Geosciences Union found that European ski resorts may lose up to 70% of their snow cover by 2100 due to climate change.

In addition, there may be significant physical risks associated with a target's supply chain potentially affecting its ability to reliably produce its products and deliver services. For example, at first glance, a clothing manufacturer targeted in an acquisition may seem unlikely to be subject to material risks associated with climate change; however, if such clothing manufacturer sources its products from a low-lying area like Bangladesh, an essential source for many clothing retailers globally, risks associated with climate may be

¹ University of Miami Rosenstiel School of Marine and Atmospheric Science, "Increasing flooding hazard in coastal communities due to rising sea level: Case study of Miami Beach, Florida," *Ocean & Coastal Management*, Vol. 126, June 2016.

far greater than originally anticipated, as Bangladesh is frequently cited as a country most likely to be impacted by the anticipated sea-level rise associated with climate change. While supply chain due diligence is now a common element of any M&A transaction, it is becoming increasingly important to assess how climate change could impact a target's suppliers as well as raw materials used in the target's operations.

Shareholder Activism Considerations

Carbon-intensive businesses, such as oil and gas exploration and production, electric utilities, and chemical manufacturers, also face risks related to a growing cadre of institutional and other investors who have pledged to reduce or eliminate the carbon-intensity of their investments and portfolios. Known as fossil fuel divestment or portfolio decarbonization, these socially motivated campaigns seek to achieve reductions in GHG emissions by shifting investment capital from particularly carbon-intensive companies, projects, and technologies in each sector and by reinvesting that capital into carbon-efficient companies, projects, and technologies of the same sector. If a sufficient number of institutional investors start to engage and/or reallocate capital on the basis of companies' GHG emissions, it can provide a strong incentive for those companies to rechannel their own investments from carbon-intensive to low-carbon activities, assets, and technologies. According to a report prepared by Arabella Advisors, as of 2018, nearly 1,000 institutional investors with \$6.24 trillion in assets have committed to divest from fossil fuels, an increase of 11,900% in just four years.² Although the direct financial impact on share prices related to such campaigns is likely to be small in the short term, the report concluded that the reputational damage, or stigmatization, can still have major financial consequences. In particular, significant reputational damage to carbon-intensive businesses could reduce the availability or increase the cost of debt, both short-term working capital and long-dated securities.

In the wake of the agreement reached at the 2015 United Nations Framework Convention on Climate Change (UNFCCC) meeting in Paris, known widely as the Paris Agreement, there were 89 shareholder resolutions filed on climate change in 2016. Many institutional investors are now considering climate-related factors in their investment decisions. In fact, Blackrock, the world's largest asset manager with \$5.4 trillion in assets under management, has identified climate risk disclosure as one of five top engagement priorities.

There is perhaps no better example of the shifting in opinions on this issue than the case of ExxonMobil. In May 2017, 62% of shareholders voted for a nonbinding measure that would require ExxonMobil to report on the risks to its business from new

technologies and global climate change policies. This represented a substantial increase over the 38% of voting shareholders who voted for a similar measure just one year earlier, indicating that the proposal was backed by at least some of Exxon's top institutional shareholders. Exxon opposed the proposal, arguing that it already provided information on risks to its business from clean energy technologies and global climate change policies. A separate proposal seeking a report on Exxon's efforts to reduce emissions of methane, a particularly potent GHG, received support by 38.7% of ballots cast, raising the possibility that a similar resolution could pass in the near future. Ostensible effects of such shareholder activism can be evidenced in ExxonMobil's subsidiary XTO Energy expanding its methane emissions reduction initiative and signing onto the Environmental Partnership, which is composed of U.S. oil and natural gas companies with a mission statement of continuous improvement of the industry's environmental performance.

In a similar vein, another concept potentially relevant to carbon-intensive businesses is that of stranded assets, a financial term that describes corporate assets that become subject to unanticipated or premature write-downs, devaluations, or conversion to liabilities. With respect to climate change, the term has become more prevalent in recent years as economists and scientists study the potential ramifications of regulatory policies, technological advances, consumer behaviors, or other market actions that could dramatically decrease the use of fossil fuels. Investors too, are beginning to take notice, expressing concern that action needed to curtail the increase in global temperatures ultimately will result in a regulatory mandate to leave proven reserves of fossil fuels in the ground or will otherwise make it uneconomical to produce or use fossil fuels. Certain institutional investors have gone on record to state that stranded asset-related concerns have led them to divest, while others are pressuring companies to disclose their strategies to deal with the potential for stranded assets.

When assessing carbon-intensive targets in an M&A transaction, it is important to understand how that target, and its industry, is perceived by investors and financial institutions. Coal companies, for example, may have a much more difficult time attracting investment given perceptions about the negative environmental attributes of the industry. This could result in depressed pricing for the target's assets, and it could also make it more difficult to obtain debt financing, if needed. Certainly, financial investors should understand the risks of reputational damage to carbon-intensive businesses, and any trends in those risks, as such concerns may increase during the hold period and jeopardize a successful exit.

Compliance Risks

Despite a varied and rapidly shifting regulatory landscape on climate, parties to an M&A transaction should identify and assess compliance risks. Many jurisdictions have passed laws or promulgated rules and regulations aimed at combatting climate change. Some of these legal requirements may directly affect a target company, while others may have indirect effects on supply chains, the price of raw materials, or otherwise impact operating costs. Buyers and lenders in M&A deals, therefore, need to understand the current state of climate change regulation to determine whether a target's business is directly or indirectly affected by such regulation. Given the rapid developments in climate change regulation, this is not always an easy task.

Federal Climate Change Regulation

The U.S. federal government's effort to regulate climate change serves as a vivid example of the unsettled state of domestic climate change law. In 2007, the United States Supreme Court ruled in *Massachusetts v. EPA*, that GHGs must be regulated under the federal Clean Air Act, a law first passed in 1970 (long before climate change entered the lexicon), provided that the Environmental Protection Agency (EPA) issues a finding that GHGs endangered the public health and welfare, which the EPA has since done.³ Around this time, Congress made several attempts to amend the Clean Air Act to impose restrictions on GHG emissions; however, these efforts never met with success. Frustrated with Congress' inability to pass what it saw as important restrictions on GHG emissions, the Obama administration attempted to bypass Congress by promulgating several regulations under the existing Clean Air Act aimed at reducing GHG emissions from the power sector, the largest emitter of GHGs in the United States. These rules, promulgated by the EPA, imposed standards on both new and existing power plants. These rules were immediately challenged in court by plaintiffs who argued that the EPA overstepped its authority under the Clean Air Act, and many of these challenges remain pending. As such, it remains unclear to what extent the EPA can regulate GHGs, notwithstanding the Supreme Court's finding that it must.

The state of federal climate change regulation was further disrupted by the 2016 election of Donald Trump to the presidency. Since taking office, President Trump has made it clear that his administration has no interest in taking any legislative or regulatory action to mitigate or adapt to the effects of climate change. Rather, he has suggested that climate change is a hoax and has taken steps to withdraw the United States from the Paris Agreement, which is discussed in greater detail below.

In furtherance of these views, the EPA issued a public notice in 2017 that the EPA will repeal the rules imposing GHG emission

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standards on existing power plants.⁴ The EPA also issued a mid-term evaluation in April 2018, in which it determined that the model year 2022-2025 light-duty vehicle GHG standards were too stringent and should be revised. Actions like these are certain to spur a new round of legal challenges, where plaintiffs will almost certainly argue that, given the Supreme Court's ruling in *Massachusetts v. EPA*, the federal government is required to regulate GHG emissions. One example is a lawsuit against the EPA filed in May 2018 by a coalition led by California of 17 states and the District of Columbia. The suit seeks to preserve the country's single vehicle emission standard, which the coalition says former EPA Administrator Scott Pruitt

² Arabella Advisors, "The Global Fossil Fuel Divestment and Clean Energy Investment Movement," 2018.

³ 549 U.S. 497 (2007). ⁴ 82 Fed. Reg. 48,035 (Oct. 16, 2017).



refused to enforce, and claims the EPA's plan to weaken vehicle emissions standards violates the Clean Air Act. In December 2018 the Environmental Defense Fund brought a lawsuit against the EPA for failure to release public records on industry compliance with limits on pollution of methane and GHGs released during oil and gas production, which would provide key information relevant to the EPA's effort to weaken pollution limits, as well as records of EPA's review of the Clean Power Plan.⁵ If the past is predictive, legal disputes over federal regulation of GHG emissions likely will remain unresolved well into the next presidency.

In addition to the disarray surrounding the direct regulation of GHG emissions, other aspects of the federal government's climate change regulation currently are in doubt. For example, in an attempt to reduce total GHG emissions, the United States has adopted several programs aimed at promoting renewable energy production, including research and development grant programs and tax credits for renewable energy investment and production that have been subject to the ever-changing political whims of Congress, leaving those in the industry unsure whether certain government benefits will be available from year to year.

On March 11, 2019, President Trump announced his 2020 budget request, which included a 31% reduction for the EPA. While the EPA's main projects and core missions will still remain in place, the proposed budget as compared with FY 2019 reduces funds for clean air and research regarding air and energy. A closer look at the FY

2020 EPA budget shows elimination of some sub-program projects under the Atmospheric Protection Program and Global Change Research Program.

The unsettled state of federal law concerning climate change makes it very difficult to assess what impact, if any, federal regulation will have on a particular business operating in the United States. Certainly, those in the power generation industry remain subject to a shifting legal regime that could have profound impacts on their operations. For companies assessing potential M&A transactions with targets in the traditional or renewable energy industries, including any of their suppliers or major customers (which now include many Fortune 500 companies that have directly contracted for energy from solar and wind farms), assessing possible impacts from federal climate regulation will be key to any due diligence exercise.

State Regulation of Climate Change

In the absence of stable federal policy concerning climate change, many states have taken action to reduce GHG emissions or otherwise respond to climate change. For example, a block of nine states in the Northeast and Mid-Atlantic have joined together to establish a cap-and-trade program, known as the Regional Greenhouse Gas Initiative (RGGI), regulating GHG emissions from power plants located within the member states (as of the date of this writing, Connecticut, Delaware, Maine, Maryland,

Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont).⁶ Under a cap-and-trade program, GHG emitters either are granted or must purchase credits equal to the amount of GHGs emitted over a certain period of time. The number of available credits is capped, ensuring that total GHGs emitted from all regulated sources do not exceed a preset amount, which often lowers over time. Under the RGGI program, for example, the cap is reduced by 2.5% each year until 2020. It is up to the source either to reduce emissions or obtain sufficient credits to match its emissions. In general, market forces set the price of a credit on an open market.

While RGGI is focused exclusively on the power generation sector, California (the world's sixth-largest economy) has enacted, under the California Global Warming Solutions Act of 2006,⁷ a more expansive cap-and-trade program that applies to utilities, large industrial facilities, and certain fuel distribution companies, regulating 85% of all of California's GHG emissions. One interesting aspect of the California program is that it allows for what are known as offset credits, whereby businesses that voluntarily reduce GHG emissions can generate credits equal to their GHG reduction, which credits can then be sold to regulated entities to meet their compliance obligations under the cap-and-trade program. California recently renewed its commitment to its cap-and-trade law, extending the program until 2030, and requiring that it reduce GHG emissions by 40% below 1990 levels over the next 11 years.

In addition to cap-and-trade programs, a majority of states have taken action to promote the use of renewable energy technologies. Twenty-nine states as well as the District of Columbia currently have adopted binding renewable portfolio standards, which require that a certain percentage of the retail electricity power consumed, or generated, come from renewable energy sources, typically wind, geothermal, solar, hydro, landfill gas, or biomass (and nine additional states have renewable or alternate energy goals, which generally are not legally binding). Minnesota, for example, has had a program in place for over a decade aimed at boosting renewable energy use throughout the state economy by requiring utilities to procure 25% of its power from renewable sources by 2025 and has tracked GHG emission reductions in a variety of industrial, agricultural, and transportation sectors.⁸ Hawaii requires utilities to procure 100% of its electricity from renewable sources by 2045 and, in addition, has placed caps on GHG emissions from major sources, such as power plants and refineries.⁹ In Massachusetts, which also has a renewable portfolio standard on its books and is a member of RGGI, the legislature currently is considering a pair of bills that would impose a tax on transportation fuels, such as gasoline and diesel, as well as heating oil, based on their GHG-emitting potential, which will affect anyone operating in the state.¹⁰

In short, many states have acted to fill the void left by the federal government in the area of climate change regulation. Parties to M&A transactions need to be aware of state-level requirements, both those on the books and those pending in the state legislatures and regulatory agencies. Much like the federal government, the status of climate change regulation at the state level remains in flux, though unlike at the federal level, the trend appears to be towards greater regulation. Depending on the state and the industry, the operating costs associated with these regulations could be substantial.

International Climate Change Regulation

Parties to M&A transactions that involve overseas operations also need to be aware that many foreign jurisdictions have enacted laws aimed at combatting climate change, and it is likely that many more will in the next decade. This is because 185 nations (out of 197 parties to the convention) have ratified the Paris Agreement, which requires signatories to take steps to keep global temperature rise below 2 degrees Celsius above pre-industrial temperatures while pursuing efforts to limit it to 1.5 degrees Celsius. The Paris Agreement seeks to increase the ability of the global community to adapt to, and directs funds towards, low-emission and climate-resilient development. Paris Agreement parties generally are permitted to adopt whatever means they choose for achieving those goals, though countries are to submit plans to the UNFCCC by 2020 detailing those efforts and are required to update those plans every five years.

Of course, the Paris Agreement is not the first international undertaking to combat climate change. Businesses operating in the European Union likely are familiar with its GHG cap-and-trade program, known as the EU Emissions Trading System (EU ETS), which is the world's first international emissions trading system to address GHG emissions from companies and is by far the biggest carbon market today. It covers more than 11,000 power plants and manufacturing facilities in the 28 EU member states as well as Iceland, Liechtenstein, and Norway. In addition, airline operators flying within and between most of these countries are also regulated under the programs such that, in total, around 45% of total EU emissions are limited by the EU ETS.

China, the world's largest emitter of GHGs, is also taking steps to combat climate change. A Paris Agreement signatory, China has committed to reducing GHG emissions by up to 45% from 2005 levels by 2020 and increasing renewable energy production so that it will meet 20% of national electricity needs by 2030. In addition, since 2011, China has implemented a number of cap-and-trade pilot programs in cities and provinces around the country, testing market-based mechanisms for reducing GHG emissions.

5. Environmental Defense Fund, Inc. v. United States Environmental Protection Agency, No. 1:18cv2861 (D.D.C. Dec. 6, 2018).

6. <https://www.rggi.org/program-overview-and-design/elements>. 7. 2006 Cal AB 32. 8. Minn. Stat. § 216B.1691. 9. Haw. Rev. Stat § 269-91 et seq. 10. See 2017 Bill Text MA S.B. 1821; 2017 Bill Text MA H.B. 1726.

Large emitters of GHGs also face litigation risks associated with tort claims alleging various injuries related to climate change. Several cases have been brought in courts across the country alleging damages related to climate change under tort theories such as nuisance, trespass, and negligence.

Outside the United States, it is largely accepted that climate change poses a significant threat to human health, the environment, and many industries. Almost without exception, the trend internationally has been towards greater regulation, and given the commitments embodied in the Paris Agreement, there is little reason to believe this trend will not continue. Therefore, parties to M&A deals involving foreign operations will need to assess what steps the foreign jurisdiction is taking to combat climate change, and because there is no overarching international agreement as to what those steps should be, a country-by-country analysis will be required.

Litigation Risks

It also is increasingly important in M&A transactions to assess potential litigation risks arising out of climate change. Over the past few years, climate change litigation against private parties has arisen in numerous contexts, though the largest GHG emitters, particularly those in the oil and gas industry, appear to be the most likely targets.

Government Investigations into Climate-Related Disclosures

One litigation risk concerns government investigations into disclosure practices surrounding the existence or potential impacts of climate change. These investigations seek to determine whether certain energy companies have participated in a long-standing disinformation campaign to create doubt about the existence of climate change and to undermine scientific findings regarding climate change. In November 2015, the New York Attorney General announced that a two-year investigation found that Peabody Energy Corporation, the largest publicly traded coal company in the world, had violated New York laws prohibiting false and misleading conduct in the company's statements to the public and investors regarding financial risks associated with climate change and potential regulatory responses. As part of the agreement concluding the investigation, Peabody agreed to file revised shareholder disclosures with the U.S. Securities and Exchange Commission that are to "accurately and objectively represent these risks to investors and the public." That same month, the New York Attorney General issued ExxonMobil a subpoena ordering the company to turn over four decades worth of research findings and communications into the

causes and effects of climate change. Massachusetts and California have since commenced similar investigation into ExxonMobil's conduct with respect to climate change disclosures. In addition, members of Congress have called on the Department of Justice to investigate whether Shell Oil deceived the public on climate change at the same time it was preparing its business operations for rising sea levels. The ultimate impact of such investigations into fossil fuel company conduct regarding climate change is unclear. To date, lawsuits generally have not been filed, and it is uncertain whether the investigations of the attorneys general will identify information that would allow a lawsuit to proceed against the companies under investigation. Nevertheless, governmental investigations can be costly, both in terms of legal fees and reputationally. As such, parties to M&A transactions involving energy companies and other large sources of GHGs should assess a target's disclosures concerning climate change to determine whether they present any issues.¹¹

Tort Litigation

Large emitters of GHGs also face litigation risks associated with tort claims alleging various injuries related to climate change. Several cases have been brought in courts across the country alleging damages related to climate change under tort theories such as nuisance, trespass, and negligence. For example, in *Connecticut v. American Electric Power Co.*, eight states, the City of New York, and three environmental groups filed suit against five energy companies, alleging that the carbon dioxide emissions from the companies' power plants contribute to the public nuisance of global warming.¹² Plaintiffs asked the district court to cap carbon dioxide emissions and mandate annual emissions reductions. The court granted defendants' motions to dismiss on the grounds that the case raised non-justiciable political questions; however, on appeal the U.S. Court of Appeals for the Second Circuit Court of Appeals reversed the decision, holding that the plaintiffs had standing to bring their claims.¹³ The U.S. Supreme Court later reversed the Second Circuit, holding that the plaintiffs' claims were preempted by the Clean Air Act, which the Court found delegated authority to regulate harms associated with GHG emissions to the EPA.¹⁴

Another example of climate change tort litigation can be found in the case of *Comer v. Murphy Oil*. In the district court case, Mississippi property owners had brought suit against numerous insurers, chemical companies, oil companies, and coal companies, alleging that the defendants' carbon dioxide emissions contributed to global warming, which warmed the waters in the Gulf of Mexico and increased the frequency and severity of hurricanes, including Hurricane Katrina.¹⁵ Under theories of private nuisance, trespass, and negligence, the plaintiffs sought damages for loss of property, loss of income, cleanup expenses, loss of loved ones, and emotional distress. The suit was dismissed on standing and political question grounds, and plaintiffs appealed to the U.S. Court of Appeals for the Fifth Circuit, which initially overturned the district court ruling for the same reasons cited by the Second Circuit in the *Connecticut v. American Electric Power Co.* case.¹⁶ However, after a protracted legal battle over procedural rules, the district court's decision ultimately was allowed to stand.¹⁷

A further example of climate-related tort litigation is *California v. GMC*,¹⁸ where the state of California sued six manufacturers of automobiles alleging that emissions from the manufacturers' vehicles contributes to global warming and constitutes a public nuisance under state and federal law. California sought compensation for its current and future expenditures related to global warming. The district court also dismissed the suit on political question grounds, and the case was not appealed.

One unique case employing creative legal theories combined a traditional public nuisance claim with a more innovative conspiracy claim to confront issues related to the effects of global climate change. In this case, *Native Village of Kivalina v. ExxonMobil Corp.*,¹⁹ a coastal Alaskan city and village experiencing such drastic erosion and severe storm effects that experts declared the entire town must be moved to a safer location sued nearly two dozen large energy companies for contributing to the global public nuisance of climate change and for conspiracy to engage in a misinformation campaign about the effect of human activity on climate change. Attorneys for the village likened this claim of conspiracy to misinform the public to claims made against tobacco companies for similar behavior. The U.S. District Court for the Northern District of California dismissed the case on a number of grounds, and on appeal, the U.S. Court of Appeals for the Ninth Circuit found that the U.S. Supreme Court's decision in *Connecticut v. American Electric Power Co.* meant that the plaintiffs could not proceed with their case.²⁰

While none of these cases ultimately resulted in verdicts for the plaintiffs, largely due to the courts' holding that the plaintiffs' claims were preempted by the Clean Air Act, some are beginning to question whether the United States may soon experience a renewed

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round of climate-related tort litigation prompted, in part, by the Trump administration's actions aimed at rolling back existing GHG regulations. In fact, in July of this year, three local governments in California (San Mateo County, Marin County, and the City of Imperial Beach) each sued 20 fossil fuel companies, including Chevron, ExxonMobil, Peabody Energy, and Arch Coal, under various state common law tort theories alleging that each defendant is responsible for contributing to climate change, which has resulted in sea level rise and increased flooding that resulted in the local governments' incurring damages. Whether these three cases are a sign of things to come remains to be seen, but it is noteworthy that the plaintiffs' claims were brought under state common law, which is not preempted by the federal Clean Air Act.

NEPA Litigation

Litigants also have turned to the National Environmental Policy Act of 1969 (NEPA) as a means by which to pursue climate change interests in court. In *Border Power Plant Working Group v. Department of Energy*,²¹ one of the first cases to raise climate change issues in challenging NEPA compliance, the court evaluated whether the Department of Energy and the Bureau of Land Management

11. For additional information concerning disclosure requirements with respect to climate change risks, see Environmental Law in Real Estate and Business Transactions, Chapter 16. 3-16 Environmental Law Practice Guide § 16.01 et seq. 12. 406 F. Supp. 2d 265 (S.D.N.Y. 2005). 13. *Connecticut v. Am. Elec. Power Co.*, 582 F.3d 309 (2d Cir. 2009). 14. *Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410 (2011).

15. *Comer v. Nationwide Mut. Ins. Co.*, 2006 U.S. Dist. LEXIS 33123 (S.D. Miss. Feb. 23, 2006). 16. *Comer v. Murphy Oil USA*, 585 F.3d 855 (5th Cir. 2009). 17. *Comer v. Murphy Oil USA*, 718 F.3d 460 (5th Cir. 2013). 18. 2007 U.S. Dist. LEXIS 68547 (N.D. Cal. Sept. 17, 2007). 19. 663 F. Supp. 2d 863 (N.D. Cal. 2009). 20. *Native Village of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849 (9th Cir. 2012). 21. 260 F. Supp. 2d 997 (S.D. Cal. 2003).

Given the change in approach adopted by the Trump administration, it would not be surprising to see a surge in climate change litigation in the near future.

adequately complied with NEPA requirements in connection with granting permits and rights-of-way for construction of new utility lines between California and Mexico. The court determined that the agencies violated NEPA requirements by arbitrarily and capriciously failing in their Environmental Assessment (EA) to adequately account for, among other things, carbon dioxide emissions contributing to global warming. After the court struck down their initial Finding of No Significant Impact, the agencies undertook another EA to produce an Environmental Impact Statement (EIS) that included, inter alia, the cumulative impact of carbon dioxide emissions on the environment.²² In *Mid States Coalition for Progress v. Surface Transportation Board*, the court rejected an EIS submitted by the federal Surface Transportation Board (STB) for a proposed rail-line construction project geared toward coal transportation across the Midwest because the EA analysis failed to include environmental impacts from increased carbon dioxide, among other, emissions.²³ The STB subsequently conducted another EA and produced another EIS, again approving the project. This time, the court upheld the EIS, which now included an analysis of the environmental impact of carbon dioxide and other emissions on the environment.²⁴ Most recently, in the case of *Sierra Club v. FERC*, the U.S. Court of Appeals for the D.C. Circuit ruled that the Federal Energy Regulatory Commission (FERC) failed to adequately review the environmental impacts of the GHG emissions of a natural gas pipeline based on the FERC's failure to assess the climate-related impacts of burning the gas transported by the pipeline.²⁵ In response to the *Sierra Club* ruling, the FERC revised the final EIS to include a quantitative estimate of the pipeline project's downstream GHG emissions and why the FERC regards the Social Cost of Carbon tool as not useful for NEPA compliance.²⁶ While these NEPA-related cases were not filed directly against private parties (and, in fact, cannot be), it is clear that they can have a substantial impact on a private party's operations.

To date, climate-related litigation has been limited largely to parties or projects involved in oil and gas and other major GHG-emitting

industries. There also has been something of a recent lull in the number of climate-related cases filed in the courts; however, many attribute this to the fact that the Obama administration was seen as taking a proactive role in addressing climate change. Given the change in approach adopted by the Trump administration, it would not be surprising to see a surge in climate change litigation in the near future. As such, parties to M&A transactions involving major GHG emitters would be wise to assess the risk that the target may be named in such litigation.

Conclusion

Assessing climate change risks in M&A transactions can be difficult, at times subjective, and in many cases speculative. Any diligence exercise in this area must be tailored to the particular target, the location and operations of its assets, the nature of its supply chain, and the target's own experience managing climate-related risk. There simply is no standard procedure for conducting this type of due diligence. That said, every climate change diligence exercise in an M&A transaction will require the parties to consider the totality of a target's operations and anticipate infrequent occurrences that may present catastrophic risks.

When assessing companies that emit significant quantities of GHGs, the parties and their counsel must examine issues concerning the target's current and future compliance obligations with climate change-related regulations. Some questions to ask in M&A due diligence include:

- Does the target operate in jurisdictions where GHG emissions are regulated or where there are current or recent historic efforts to impose such regulation?
- If currently regulated, will the target be required to make significant capital expenditures to obtain or maintain compliance?
- Is the target part of an industry that has been subject to governmental investigations or litigation relating to climate change?
- Has the target made public statements or disclosures concerning climate change risk that may in any way be considered misleading?

While it is perhaps obvious that climate change-related diligence of major GHG emitters is important, it is becoming clear that such diligence is just as important in M&A deals involving companies with little or no GHG emissions. These types of questions need to be asked regardless of whether the target operates in a carbon-intensive industry:

- Does the target operate, or are its raw materials sourced, in areas prone to flooding or at risk of rising sea levels?
- Is a warming climate likely to affect business operations or a target's supply chain?
- Is the company developing, or dependent upon, a project that may require a NEPA assessment?
- Is the target procuring renewable energy from projects dependent on governmental subsidies or similar support programs?

Certainly not all of these risks will be present in every M&A deal; however, where they do materialize, they can be material to the transaction. As such, it is key for those involved in M&A deals to understand the risks and think creatively about how they can be assessed and, if possible, managed in the transactional context. **L**

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²² See 68 Fed. Reg. 61,796 (Oct. 30, 2003). ²³ 345 F.3d 520 (8th Cir. 2003). ²⁴ *Mayo Found. v. Surface Transp. Bd.*, 472 F.3d 545 (8th Cir. 2006). ²⁵ 867 F.3d 1357 (D.C. Cir. 2017). ²⁶ *Fla. Southeast Connection, LLC*, 164 F.E.R.C. P61,099 (2018).





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U.S. Oil and Gas Industry M&A Trends 2018/19



Market Activity

2019 has been eventful for the domestic oil and gas industry. Oil and gas acquisitions in the United States hit a 10-year low in the first quarter, with deal value plunging by over 90% just from the fourth quarter of 2018. A rapid reduction in oil prices in late 2018 is believed to have triggered these effects. However, the second quarter of 2019 brought a resurgence, with deal value spiking to \$118.7 billion, an all-time high for a second quarter, according to a study by PricewaterhouseCoopers.

Oil price volatility is a pervasive factor in the industry's deal statistics, inevitably affecting deal value each quarter. When prices are stable, it allows both buyer and seller increased confidence that a deal is not heavily favorable to the counterparty and further suggests a maturation of the cost-cutting measures taken by domestic shale producers. More stable economics allow typical sellers—generally distressed sellers that are considering selling assets to de-lever their balance sheets—and typical buyers—generally strategic buyers and financial sponsors making bets that the market has reached a level of stability with respect to oil and gas prices—to have comfort that their decisions are not going to be second guessed because of massive fluctuations in price.

From 2009 to 2014, deal-making relied on stable oil prices between \$70 and \$80 per barrel. In 2015, oil prices fluctuated wildly, leading to uncertainty in deal making. Oil prices then stabilized, ranging between \$42 and \$52 per barrel beginning in June 2016, and that stability led to a moderate increase in oil and gas acquisitions and dispositions. 2017 brought similar stability at a range between \$50 and \$60 per barrel, but deal value and deal count took a small dive, with experts citing lasting effects of caution arising out of the lower for longer business environment of the past several years. Oil prices reached a four-year high by October 2018 before plunging and leading to such a dismal start to 2019.

Notably, three mega-deals (deals valued at \$5 billion or more) represented 75% of the deal value in the second quarter of 2019, demonstrating a comeback of blockbuster transactions. Though it is unclear precisely whether this uptick in large acquisitions and dispositions will continue through the fourth quarter of 2019, the current geopolitical and macroeconomic landscape has the potential to create even more oil price volatility.

The oil and gas industry is capital-centric, so without adequate access to capital, oil and gas companies cannot survive. Low or volatile oil prices force oil and gas companies to be creative in their efforts to raise capital. The threat of a decreased borrowing base often motivates producers to consider strategic dispositions or alternative capital providers. These alternative providers include private equity funds and mezzanine funds, though these funding sources often come with heavy strings attached, and many private equity funds with substantial available cash are instead content to withhold capital and poach prized assets out of bankruptcy.

Recent Trends

The oil and gas industry comprises four main sectors:

- Upstream: companies that explore for and produce the oil and gas
- Oil field services: companies that provide services to the exploration and production industry
- Midstream: companies that transport and store oil and gas
- Downstream: companies that refine, process, and distribute oil and gas

Because of the different role each sector plays in the production and distribution of oil and gas, each sector experiences different effects from fluctuations in oil and gas prices. Accordingly, trends in merger and acquisition (M&A) activity are best examined at the sector level.

Upstream Trends

The upstream sector accounted for the majority of the U.S. oil and gas deal value in the second quarter of 2019. Deal activity is increasing due to the continuing attractiveness of shale plays, particularly in low-cost-of-production basins. The Permian basin and Marcellus basin each have a break-even point that is approximately \$20 per barrel below that of higher cost-of-production locations. In 2018, upstream deals in the Permian basin had an aggregate transaction value of \$25.7 billion, more than twice the value of deals in the next most active basin. The geology of the Permian basin and the high number of vertical wells drilled there lead to lower production costs. Additionally, most of the deal value is derived from the sale of undeveloped acreage—a product of producers being more willing to explore in low-cost basins than acquire producing wells in higher cost basins. Buyers possess more confidence when acquiring companies operating in low-cost basins because of the decreased costs of operation, which helps preserve positive operating margins. Conversely, dry gas production basins such as the Bakken have seen fewer acquisitions because of the higher costs of production; however interest has grown some over the past few years. Buyers are content to let operators in high-cost areas file for bankruptcy in order to secure a more attractive deal through the purchase of producing assets via transactions under Section 363 of the U.S. Bankruptcy Code.

Many small to midsize upstream companies have been pursuing royalty deals as a means of raising capital. With 29 deals worth \$2.2 billion total for the year 2018, royalty deal volume and value reached an all-time high. All of these deals were for proven but undeveloped assets, which suggests a trending interest driving future growth by minimizing the risk involved in operating the assets. When 2019 comes to a close, it will be telling to see whether this trend has continued.



Oil Field Services Trends

Aggregate deal value in the oil field services sector fell to a five-year low in 2018, and there was limited activity into the first half of 2019. While market valuations of oil field services companies fell by nearly 40% from 2017, the last quarter of 2018 marked record-high asset sales of more than \$6 billion. As the demand for rigs per drilling unit has decreased and midstream bottlenecks have held back demand growth for equipment, oil field services companies have resorted to selling assets that were not producing sufficient revenues.

A common strategy in oil field services deals is to supplement existing services as opposed to creating new segments. Nearly all the oil field services deals in 2018 were between a buyer and seller with significantly overlapping business models, which suggests that companies remain conservative at this time, focusing on what they already do well in the industry.

The EnSCO/Rowan merger was the top oil field services deal of 2018. The merger's goal was to combine the companies' rig fleets and infrastructure in order to increase scale without neglecting high-specification assets. After years of bankruptcy and overcapacity in this sector, improving offshore margins is important for oil field services companies.

Midstream Trends

With years of low oil prices causing decreased deal activity, the midstream sector saw an increase in aggregate deal value in 2018, surpassing upstream deal value in three out of four quarters. Activity in the United States decreased in the first half of 2019, but a general bottlenecks of infrastructure has resulted in a general

increased interest in existing, completed pipeline assets over the past couple years.

Long-term, fixed-price contracts are common in the midstream sector, as these agreements protect midstream revenue. Industry analysts believed the fixed-price contract structure would protect the midstream sector for a significant amount of time. However, deal activity in the midstream sector is susceptible to a prolonged downturn in oil prices. Since its spike in both deal count and deal value in late 2016, the sector has not quite picked up again, with deal counts ranging from about 10 to 20 each quarter. Gathering and processing deals have been at the forefront of deal activity in this sector, particularly in 2018.

Master limited partnership-backed deals continue to slow down in the midstream sector after the Federal Energy Regulatory Commission enacted an unfavorable tax policy toward this type of structure in early 2018. Private equity continues to show interest in the midstream sector, demonstrating the many creative ways an oil and gas deal may be structured. Special purpose acquisition companies (SPACs) have also proven to be a viable deal-making strategy in the sector, a notable example being the SPAC Kayne Anderson Acquisition Corporation's \$3.5 billion deal that created the first debt-free, cash-rich, publicly-traded, pure-play midstream corporation in the Permian Basin.

Downstream Trends

Worldwide, the downstream sector achieved a record aggregate deal value in 2018. Marathon Petroleum's acquisition of Andeavor is one of the chief reasons for this accomplishment, as this U.S. transaction was not only the largest downstream deal globally to

date, but one of the largest deals of the oil and gas industry in 2018. Increased activity in the marketing and storage business verticals also contributed to this deal value. Nearly half of the downstream deals in the last quarter of 2018 were in the storage vertical, and activity in this segment is slated to only increase over time.

The downstream sector comprises only a small portion of the U.S. oil and gas deal distribution in 2019. While the downstream sector provided 7% of oil and gas deal volume in the second quarter of 2019, it only comprised 4% of the total deal value. This is likely attributable to the increased activity of smaller-sized companies.

Industry-Specific Transactional Considerations

Deal Structure

Deal structuring issues tend to turn upon two factors: first, the involvement, if any, the sellers will have in the ongoing assets or enterprise; and second, the tax ramifications of the deal in question.

In terms of post-transaction involvement, management of the selling entity will seek to retain some form of upside. A royalty spin-off and earn-outs are two attractive methods sellers use to protect upside.

Due Diligence

The cost of production is the first and foremost due diligence issue in oil and gas M&A. A low oil price environment demands an accurate cost of production picture. Due diligence must therefore be precise and complete. Engaging reputable industry consultants who are independent and not incentivized to close helps dealmakers gain a more accurate rendering of the cost of production. Additionally, due diligence concerning title issues, environmental liabilities, third-party processing and transportation agreements, and storage facilities continue to be necessary when conducting oil and gas due diligence.

Regulatory Requirements

Most commonly, oil and gas transactions are regulated by organizations such as the Environmental Protection Agency and the relevant state-level administrative agencies (for example, the Texas Railroad Commission). However, many practitioners would be unaware of the need to get approval from the Bureau of Land Management (BLM) (a part of the U.S. Department of the Interior) for transactions involving production or leases on Native American reservations. The BLM is an inherently convoluted and cumbersome area of regulation; therefore, the help of a BLM specialist is important when constructing deals that require BLM approval. For instance, the Dakota Access Pipeline—noteworthy due to Native American protests—had to receive permission from the BLM in order to develop the pipeline. **L**

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WEIL, GOTSHAL & MANGES LLP

Allocating Environmental Risks in the Transaction Agreement

This article discusses the most important contractual provisions for understanding and allocating environmental liabilities in the agreement: environmental representations and warranties, indemnification, and access rights.

UPON COMPLETION OF THE ENVIRONMENTAL DUE DILIGENCE investigation, the buyer should have obtained a solid understanding of the environmental issues requiring attention after operations are acquired. Furthermore, the new information allows the purchaser to intelligently address environmental issues in deal negotiations. The primary way in which environmental information is used in deal negotiations is to enable the parties to allocate financial responsibility between one another and to make sound business decisions in the context of the overall transaction. This allocation may occur in several ways. For example, the parties may negotiate a different purchase price or may change the structure of the transaction. Alternatively, the seller may agree to pay for some, or all, of the costs of cleanup, or choose to indemnify the purchaser against future environmental liabilities. In some cases, the purchaser may concede to all of the seller's terms because the risks or liabilities, when evaluated from a worst case perspective, would not be material to the bottom line of the overall transaction.

Environmental Representations and Warranties

Environmental representations and warranties can serve two purposes: first, they can help facilitate due diligence by requiring a seller to disclose what it knows about certain environmental matters; second, they can help to allocate liability for environmental matters between the buyer and seller. As with any transaction agreement, the representations and warranties concerning environmental matters will vary



depending on the nature of the assets or business being acquired. That said, in today's environment, nearly every purchase agreement will contain at least some environmental representations and warranties. These typically require the seller to represent that, except as might otherwise be disclosed to the buyer:

- There is no contamination present at the properties being acquired.
- The operations of the acquired company have not caused any contamination at any other property.
- The assets or business are and have been in compliance with environmental laws.
- There are no environmental proceedings pending or threatened concerning the assets or the business.

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Representations also may be qualified by knowledge. For example, the seller would represent that, to its knowledge, the assets are free of any contamination.

as asbestos. If a buyer feels that it has not had an opportunity to conduct ample facility-level diligence, it may request a representation that certain features are not present on any acquired real property, including underground storage tanks, landfills, or wetlands. Buyers also often seek to have a seller represent that the seller has made available to the buyer all material environmental documentation so that the buyer can obtain some level of comfort that they are aware of all known environmental liabilities.

Qualifying Representations and Warranties

Depending on the nature of the assets or businesses that are the subject of the transaction, it may be necessary to include certain qualifications on the environmental representations and warranties, particularly with respect to materiality and knowledge. For example, a purchase agreement for a highly-regulated chemical business would likely contain language in the representations providing that the business is and has been in material compliance with all environmental laws or that the business has been in compliance except for any noncompliance that could not reasonably be expected to result in the company incurring material liabilities. Representations also may be qualified by knowledge. For example, the seller would represent

Tailoring Representations and Warranties

Environmental representations and warranties should be tailored to the business or assets at issue. For example, if the target is a corporate entity that has been built through a series of acquisitions, it may make sense to include a representation that the business did not assume, by contract or otherwise, any liabilities of any third parties. If the target has a long history of manufacturing, a buyer might request a representation that the business does not and has not manufactured products containing hazardous materials such

that, to its knowledge, the assets are free of any contamination. Whether and when materiality and knowledge qualifications are appropriate for environmental representations and warranties will largely depend on the nature of the transaction and the parties' tolerance for assuming or retaining risk and the strength of its bargaining position.

Indemnification

Depending on the outcome of environmental due diligence, the nature of the deal and the bargaining strength of the parties, certain transaction agreements may provide the buyer with indemnity in the event that the seller breaches an environmental representation or warranty.

Survival Period

A key consideration in such agreements is whether the environmental representations survive. In agreements where the representations survive, the buyer may be entitled to indemnification (often subject to deductibles and caps) if it turns out that a representation was not true and the buyer incurred a loss as a result of the breach before the termination of the survival period. Survival periods for environmental representations vary, much like they do for other types of representations: they can survive for a brief period of time or, in some rare instances, they can survive forever.

One variant on the survival concept seen in some agreements provides that the representation will survive until the expiration of the statute of limitations. This presents a unique issue in the environmental context because the statute of limitations under certain environmental laws does not begin to run until the environmental issue is discovered. A survival period tied to the statute of limitations arguably creates a situation where that representation would survive indefinitely. For example, if an agreement contains a representation that there is no contamination present at real property acquired by the buyer, and that representation survives until the expiration of the statute of limitations, then arguably the buyer could demonstrate a breach of the representation if, 20 years hence, contamination attributable to the seller is discovered at the property.

Indemnification for Environmental Matters

In addition to indemnification for breaches of environmental representations, it may be appropriate for the parties to agree to specific indemnification for environmental matters. These can take many forms and cover specific known issues, contingent liabilities, or both. Specific environmental indemnities can be particularly useful when due diligence has identified a known issue, but the magnitude of the liability cannot yet be calculated. In those circumstances, the parties may not be able to agree on a purchase price adjustment to account for the liability. Thus, the parties, may agree to a special environmental indemnification clause that will provide the buyer with some level of protection while allowing the transaction to close before the full extent of the liability is known.

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For items to consider when addressing environmental issues, see

> [ENVIRONMENTAL PROVISIONS IN ACQUISITION AGREEMENTS CHECKLIST](#)

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Agreements containing indemnification for environmental matters may also contain certain environmental-specific limitations:

- **No-dig provisions.** For example, the agreement may provide that the buyer will not be entitled to any indemnification to which it might otherwise be entitled if the loss incurred by the buyer arises because the buyer conducted environmental sampling during the indemnification period. Often referred to as a no-dig, these provisions prevent a buyer from voluntarily looking for issues and then seeking indemnification under the agreement. No-dig provisions are often subject to several exceptions, including to the extent sampling is required by law or demanded by a governmental entity.
- **No recovery if changes to site.** Environmental indemnities may also be subject to restrictions that prevent recovery to the extent the buyer changes the use of a site after closing or ceases operations, both of which can change the legal requirements applicable to the site.
- **No recovery for cleanup beyond required levels.** In addition, there may be specific indemnity limitations that prevent recovery for losses incurred to cleanup a site to a level greater than required by law, for instance, if the law allows for low levels of contaminants to remain in the ground, the indemnity will not cover losses to clean up contaminants that the law would allow to remain.

In short, environmental indemnification rights and obligations can vary significantly from transaction to transaction and are often dictated by the issues identified (or not identified) during the due diligence process.

Access Rights

While a significant portion of environmental due diligence will occur prior to signing a definitive agreement, in certain transactions environmental due diligence will continue to occur between signing and closing. To the extent that the buyer wants to continue environmental due diligence after signing the agreement, the buyer will need to ensure that it has the right to do so in the agreement. Most transaction agreements will include provisions granting a buyer certain access to the seller's properties and records. These access provisions often include limitations that prevent a buyer from conducting invasive environmental sampling. To the extent that a buyer believes it may wish to perform such sampling, it should seek to include language in the access provision explicitly authorizing it to do so. Sellers are often reluctant to provide buyers with the right to conduct invasive sampling because, if the buyer identifies a significant issue, the contract may allow the buyer to terminate the deal, leaving the seller to deal with

a new environmental liability. Conversely, buyers may wish to seek to include rights to conduct sampling in the access provisions where earlier diligence suggests that there may be a potentially significant issue at a property. Depending on the deal dynamics, the seller may have no choice but to agree. **L**

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Deonne Cunningham LEAD COUNSEL, NORTH AMERICA BUSINESS (WHOLESALE), DIRECT ENERGY

Acquisition, Construction, and Project Development

This article outlines the various steps that are required for acquiring or constructing a new natural gas facility and/or pipeline infrastructure project.

YOU AND COUNSEL FOR THE OTHER PARTIES INVOLVED IN the project will need to clear several hurdles before the project is complete and the pipeline and/or facility is in service for the gathering, processing, shipping, or storing of natural gas. You will be required to file applications for construction permits and will also have to make a request to state and federal regulatory agencies for the right to provide service once the project is complete.

Along with these applications for certification, you will have to provide a worthwhile argument in the transmittal letter and accompanying documents showing a substantial need for the project, noting that the development will not substantially impact the environment. You may also be called upon to draft formal agreements with the agreed-upon terms and conditions being contingent on the requisite approvals by the appropriate governmental agencies.

Federal Energy Regulatory Commission (FERC) and the Natural Gas Act of 1938 (NGA)

There are several state and federal agencies that provide oversight of trading and marketing in the natural gas industry. Among them is the FERC, which regulates and oversees the transportation and storage of natural gas in interstate commerce as well as certain aspects of the interstate market itself. Since natural gas is transported through the interstate and intrastate pipeline network, it is federally regulated by the FERC under the Interstate Commerce Act (ICA) and state public service commissions (although state regulation varies). The Commodity Futures Trading Commission regulates the futures and options markets for commodities, including natural



gas. Other federal agencies have more limited responsibility. However, in recent years, that responsibility has increased for certain types of activities in the natural gas industry.

The NGA gives the FERC the regulatory and legal authority to regulate natural gas companies, including interstate pipelines, facilities, and storage companies. The definition of natural gas companies is broad and encompasses any entity that engages in either the transportation and storage of natural gas in interstate commerce or the sale of natural gas for resale (i.e., related sales that are not to end users of the natural gas) in interstate commerce. To that end, natural gas companies are subject to the rule of the NGA and all regulations and orders that the FERC authorizes pursuant to the NGA.

The purpose of the NGA is to ensure that natural gas companies do not charge excessive rates or unfairly discriminate amongst their customers. All rates, charges, and terms of service by FERC jurisdictional natural gas companies must be just and reasonable. Undue preferences and unreasonable rates and charges are strictly prohibited. Under Section 4 of the NGA, natural gas companies are required to file rates and charges with the FERC as well as any amendments to rates, charges, or services. If the changes are for good cause, the FERC may allow the changes to take effect and waive the 30-day notice requirement to the FERC. Through its regulatory authority, the FERC reviews individual proposals to terms of service (either through a form of contract or a tariff) and issues general rulemaking orders to establish regulations. These agency rules are cited in the federal government's Code of Federal Regulations.

Section 5 of the NGA provides a method for the FERC and the general public to seek changes to a natural gas company's rates or terms of service once they have been approved by the FERC by filing a complaint. The section specifically requires the FERC to change any rate or term of service that no longer meets the substantive standards provided for in Section 4 of the NGA (i.e., a rate or term of service considered "unjust and unreasonable" or "unduly discriminatory"). Upon a hearing, the FERC may dictate changes to the rate or terms of service on its own volition or may do so in response to a complaint by another party. In either event, in cases of unjust and unreasonable or unduly discriminatory rates or terms of service by a natural gas pipeline or storage provider, relief is only available under Section 5 of the NGA in most proceedings.

Counsel for companies that fall under the jurisdiction of the FERC should be abreast of all recent and forthcoming rulemaking orders (e.g., Notice of Intent (NOI) and Notice of Proposed Rulemaking (NOPR)) issued by the FERC, as they may require amendments to pro forma tariffs and service agreements. Furthermore, attorneys are encouraged to provide insight into these rulemaking orders. After assessment with business units, attorneys are also encouraged to provide insight into the process with respect to matters of importance to the particular pipeline company or storage service provider (e.g., comments and/or interventions on behalf of the company in NOIs or NOPRs).

Each interstate company is required to file a tariff (Tariff or FERC Gas Tariff), which states the terms and conditions upon which it will provide stand-alone transportation and storage to its shippers (customers). The Tariff's terms and conditions are then incorporated by reference in the actual contract known as a service agreement. The service agreement is used by a pipeline or storage company to provide a specific service and rates associated with that service to its shippers. Certain terms and conditions applicable to the service agreement will be addressed below.

Regulatory Approval for New Construction and Project Development

Pre-filing, Environmental Review, Certificate Application, and Open Season

Pursuant to Section 7 (and 7(c) if a natural gas storage provider) of the NGA, the FERC has the authority to approve the location, construction, and operation of interstate pipelines, facilities, and storage facilities that transport natural gas through the interstate pipeline network. The term facilities under Section 7 includes all facilities used to provide interstate sale or transportation of natural gas, including the storage of gas in interstate commerce. Specifically, the FERC is authorized to issue certificates of "public convenience and necessity for the construction or extension of any facilities for the transportation in interstate commerce of natural gas." This also includes any substantial expansions or upgrades to an existing pipeline or storage infrastructure. The FERC also approves the abandonment (cessation of activity) of these facilities. In preparing for the development, construction, and upgrade of interstate natural gas pipelines, facilities, and infrastructure, counsel for the pipeline must first obtain a certificate of public convenience and necessity from the FERC.

Prior to filing the application with the FERC, counsel for the pipeline (developer) must work with all business interests within an interstate natural gas pipeline project (e.g., business development, operations, land, and regulatory) to file a request with the FERC for permission to proceed. Counsel must use the FERC's pre-filing procedures, which the FERC established to encourage the pipeline industry to engage in initial project development discussions with relevant public and governmental agencies. This provides an opportunity for all stakeholders (including all state, local, and other federal agencies and potentially affected property owners) to discuss any concerns with the developer and the FERC. A pre-filing can be beneficial to counsel drafting formal and service agreements in anticipation of the proposed project as it will assist in improving proposals and avoiding problems during the review of a subsequent FERC certificate application. Pipeline and storage providers under the FERC's jurisdiction must also conduct a study of the potential project site, identify potential stakeholders, and potentially hold an open house for stakeholders to discuss the project. At the end of the pre-filing process, the developer (along with consultants) must conduct pipeline route studies and field surveys so that a final application can be drafted and presented to the FERC.

Pipeline companies that are seeking to modify and upgrade existing pipeline infrastructures must file an application for a blanket certificate. Pipeline companies that file an application for a blanket certificate and make prior-notice

filings¹ are not required to go through the pre-filing certification process. Accordingly, if the FERC determines that a proposed project falls within a category of activities that have been found to have no significant environmental impact, it may classify the project as a "categorical exclusion." As such, projects that fall under these specific exclusions are also free of the requirement to file an environmental assessment (EA) or environmental impact statement (EIS).

Contemporaneous with the developer's pre-filing activities, the FERC staff publishes a Notice of Intent for Preparation of an Environmental Assessment or an Environmental Impact Statement² in the Federal Register and on the FERC website, after which there is a period for public comment. The FERC also consults with interested stakeholders, including various governmental agencies, and holds public scoping meetings and site visits to the proposed project development area. Pre-filing is part of the regulatory process for pipeline infrastructure development and requires a written request for authorization to proceed with construction and to acquire a new service (most likely drafted by the developer's counsel) to the FERC's Office of Energy Projects. Developers must begin the FERC pre-filing process at least seven to eight months prior to submitting their certificate applications. Once the application is approved, the FERC will issue a pre-filing docket number to be associated with the proposed pipeline project.

Counsel for the pipeline developer typically files the application for the certificate of public convenience and necessity on behalf of the developer and ensures that all application requirements have been met prior to the filing. The application must include a description of the proposed pipeline, route maps, construction plans, schedules, and a list of other statutory and regulatory requirements, such as essential permits from other agencies (state and federal). The application must also include environmental reports analyzing route alternatives and studies of potential environmental impacts (on water, plants, and wildlife); cultural resources; socioeconomics; soils; geology; aesthetic resources; and land use. Once the application has been received, the FERC will issue a public notice of application for authorization to construct and operate a new pipeline in both the Federal Register and on the FERC website and will initiate the application review process. The FERC will grant or deny a certificate based upon whether the pipeline project would be in the public's best interest. The FERC assesses several factors, including a project's potential impact on pipeline competition, environmental impacts, and the possible use of eminent domain, and other concerns.

Per FERC policy, once a project developer has received its Notice to Proceed with Construction Activities, it must conduct an "open season."

The review of the certificate application requires examination of environmental impacts of the proposed project development in compliance with the National Environmental Policy Act³ (NEPA) and related regulations enacted by the Council of Environmental Quality.⁴ NEPA requires federal agencies to analyze potential environmental impacts of an action (such as granting a pipeline certificate) and inform the public of results and potential impacts before proceeding with that action. The Energy Policy Act of 2005 identifies the FERC as the leading agency responsible for coordinating NEPA compliance and "all applicable federal authorizations" in reviewing pipeline certificate applications.

In reviewing environmental impacts associated with the certificate application, the FERC will prepare an EA, a public document which provides evidence and a concise analysis on whether the proposed project development will have a significant impact on the environment. In the course of reviewing the pipeline certificate application, the FERC may also determine that the pipeline developer needs to file an EIS. If that is the case, counsel for the developer will need to work with the appropriate business interests to draft an EIS for the FERC's review and consideration. The EIS must include a statement of purpose, a description of the proposed project development, and the environment that would be affected by said development; a description of alternatives to meet the purpose of the project; a description of how those alternatives would affect the environment; and an analysis of direct and indirect effects of the alternatives (including cumulative impacts). Other agencies are allowed and required to provide insight, expertise, and comments to the FERC with respect to a pipeline developer's EIS. The FERC takes into consideration all public comments and intervenors (those companies that intervene in the docket number) in its application review. Intervenors are allowed to file briefs, attend hearings, and appeal the FERC's decision if it results in an unfavorable

1. 18 C.F.R. § 380.4a(21). 2. 40 C.F.R. § 1508.22. 3. 42 U.S.C.S. § 4321 et seq. 4. 40 C.F.R. §§ 1500-08.



outcome. Counsel for the developer must take all of this into account as he or she will need to act on behalf of the developer and respond (in writing and possibly in face-to-face meetings) to intervenors, the FERC, and other agencies during the certificate review process.

Should the FERC grant a pipeline certificate, the FERC order will state the terms and conditions upon which the certificate has been granted, including the pipeline route that has been authorized, types of services, capacity levels, and any construction or environmental mitigation measures required for the project. Furthermore, a FERC certificate provides a pipeline developer with the authority to secure property rights and additional real estate to lay the pipeline and build infrastructure if the developer cannot secure the necessary right-of-ways from landowners through negotiation. The pipeline developer will need to provide the FERC with any outstanding information and take action to satisfy the terms and conditions as set out in the certificate order, including an implementation plan (IP). An IP is a timeline and guide as to when the pipeline developer will start and finish the project development. An IP must be filed with the FERC within a specified period of time subsequent to the certificate order. Once the pipeline developer has provided the FERC with the required information, the FERC will issue a Notice to Proceed with Construction Activities and construction for

the project development can begin. Counsel for the pipeline developer will need to file weekly status reports with the FERC documenting the progress of the project development and certificate compliance until construction is complete. The pipeline developer must also obtain all other required state authorizations prior to construction and operation of the pipeline infrastructure.

Per FERC policy, once a project developer has received its Notice to Proceed with Construction Activities, it must conduct an “open season.” The open season policy applies to interstate pipelines and requires new construction to be preceded by a fair open season process through which potential shippers may seek and obtain firm natural gas capacity rights. With new construction, the pipeline developer (service provider) must solicit customers (new or current) for any capacity that is turned-back. The FERC has recently affirmed this policy in an effort to promote transparency and ensure that new capacity is allocated in a nondiscriminatory manner.

Investments in pipeline infrastructure are established by anchor customers contracting for long-term firm commitments in financial support of new project developments. To induce shippers to become anchor shippers to newly constructed facility, pipeline, and infrastructure development, interstate pipeline companies may permit certain contractual preferences to entice shippers in the

interstate market. In Order 686-A, the FERC affirmed that project development sponsors may offer a rate incentive as an inducement to get potential customers to commit to a proposed project at the onset, while offering a less favorable rate to those customers who commit at a later date (see Revisions to the Blanket Certification Regulations and Clarification Regarding Rates⁵ (Order 686-A)). Furthermore, the FERC has confirmed that providing these rate incentives to anchor shippers is not discriminatory to potential customers of the project development. The FERC reviews various rate incentives for anchor shippers on a case-by-case basis. To minimize the risk of a project development sponsor being accused of undue discrimination against customers, the project sponsor should establish clear parameters in its open-season announcement with respect to bidding provisions and the available rate options. This will ensure that there is an even playing field for all potential customers to sign up for new service.

Letter of Intent

Drafting a Letter of Intent (LOI)

The LOI serves a key function at the beginning of negotiations between a company and a potential customer. Upon agreement by all parties, the initial draft of the LOI should include an in-depth description of the potential transaction and/or services contemplated upon commencement of service and completion of the midstream natural gas project. The LOI will include agreed upon and negotiated key deal terms. It is customary for the potential customer’s (or initiating party’s) counsel to assume the responsibility for providing the first draft. The drafting of the LOI (and key terms contained within the LOI) by the lessee could greatly impact the bargaining power and play a central role in further lease negotiations.

It is essential and part of the ordinary course of business for counsel for the respective parties to: opine on the necessary basic and key deal terms and conditions during legal negotiations, draft the LOI, and/or provide a cursory review of the LOI with suggestions and comments. This ensures that the interests of all parties involved are clearly distinct. Since the LOI is a nonbinding agreement, the use of legal counsel to prepare the LOI will protect the respective clients against any potential challenges as to the validity or binding nature of the agreement.

Texas courts have held that an LOI is a binding agreement and controls over a conflicting agreement.⁶ However, an LOI has only been deemed enforceable when the parties agreed that some terms were to remain open to negotiation and the LOI was used to determine the original intent of the parties.⁷

To ensure that the LOI is treated as a nonbinding agreement, counsel should include express, clear, and concise language stating, among other things, that it should not be construed as part of the lease agreement and that the parties do not intend for the LOI to be binding in nature. This language should be bold and conspicuous to the reader.

Term Sheet and Precedent Agreement

Drafting the Term Sheet

In lieu of or in conjunction with an LOI, parties should consider drafting a preliminary term sheet (the Term Sheet) during the initial negotiation phase. In most cases, a Term Sheet is a preliminary outline which contains a simple outline of potential key terms and conditions of the Precedent Agreement and subsequent definitive commercial agreements (e.g., purchase and sale agreement, service agreement, and accompanying assignment agreements that may be more fully developed upon completion of the proposed sale, midstream natural gas project, and facility). Upon the completion of the deal, the Term Sheet is intended to be for discussion purposes only. It should fully embody the most relevant definitive documents, if and when the respective parties come to a meeting of the minds in principle. It should be stated in either the beginning or ending statement of the Term Sheet that it is not a binding agreement and does not constitute a legitimate and final offer.

The Term Sheet should include a brief description of the respective parties to the Precedent Agreement and a factual background as to the proposed sale, project, facility, and services to be provided at the facility. Furthermore, it should include a complete legal description of the real property associated with the proposed project and facility, any additional contractual requirements, conditions precedent, and remedies if either party should default on the terms, conditions, and obligations noted in the Precedent Agreement or other definitive agreement. In regards to modifications or amendments to an existing midstream natural gas facility (e.g., modification, amendment, or replacement of current joint operators agreement upon transfer of percentage of ownership to existing or new party), counsel for both parties should provide a historical written account of any previous initial agreements and any subsequent amendments within the factual background section.

Counsel should document provisions concerning successors and assigns of the Precedent Agreement and/or purchase and sale agreement, any conditions precedent that must be satisfied prior to the execution of the lease agreement, and a

5. 117 FERC 61,074 (2006). 6. See *Foreca, S.A. v. GRD Dev. Co.*, 758 S.W.2d 744 (Tex. 1988). 7. See *Gen. Metal Fabricating Corp. v. Stergiou*, 2013 Tex. App. LEXIS 11700 (Tex. App. Sept. 17, 2013).

working list of any definitive and future documents. As with the LOI, counsel should include express, clear, and concise language in the Term Sheet stating that it should not be interpreted as part of the Precedent Agreement (or a definitive agreement) and the parties involved do not intend for the Term Sheet to be binding in nature. The Term Sheet should state that the document is preliminary in nature and constitutes a “potential transaction” to show the express intent of all parties. It should further state that the Term Sheet does not obligate either party to enter into or finalize an agreement with respect to the prospective transaction. This language should be bold and conspicuous to the reader.

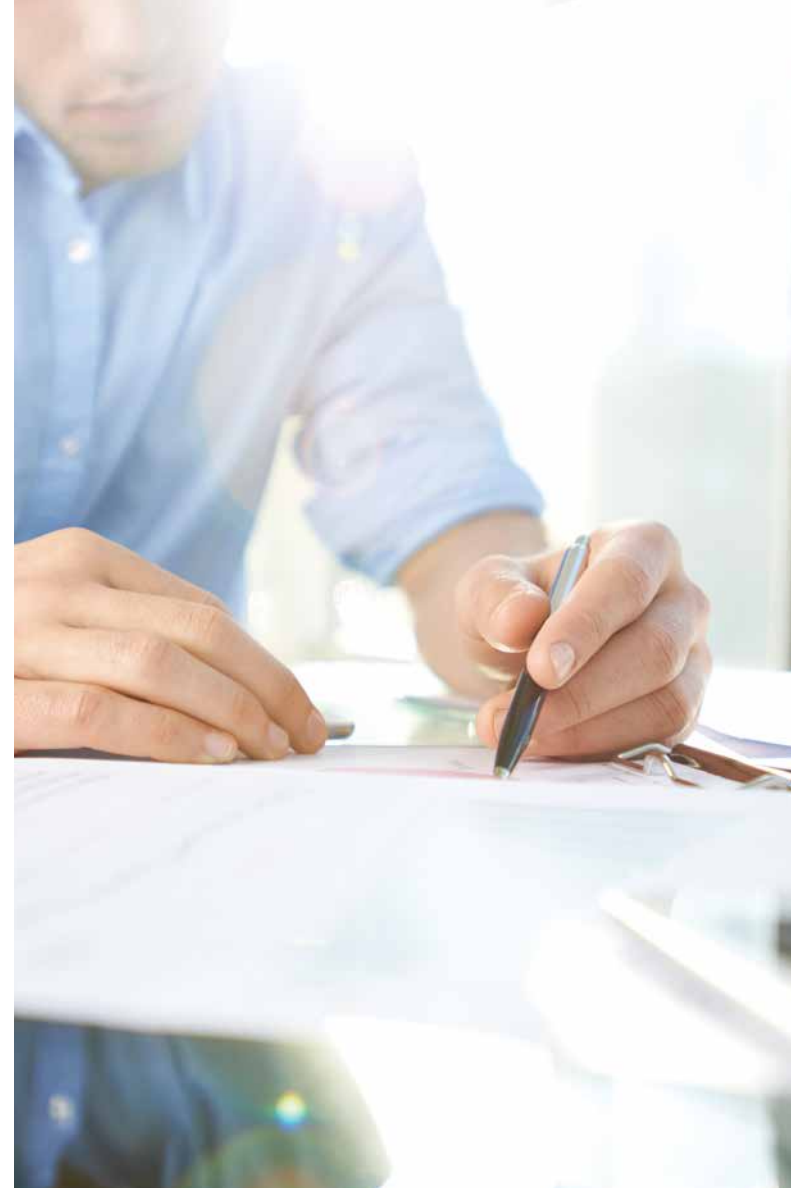
Drafting the Precedent Agreement

A Precedent Agreement is an agreement that lays out the conditions precedent, terms and conditions of service, and other key factors that will commence once a midstream facility is fully operational. A Precedent Agreement allows a company that is constructing a new facility or developing a new midstream natural gas project to seek early commitments from potential large customers before an open season can be held. Within the midstream segment, an open season is conducted when a new midstream natural gas facility offers current and new customers the option to transport, ship, and/or store natural gas or crude oil for a long-term, firm commitment. An open season gauges the market interest of current and potential customers and maintains compliance with federal and state regulations, in instances where there is more available capacity on a natural gas pipeline.

It may be helpful to include a Precedent Agreement as part of the definitive agreements in a midstream natural gas transaction as it sets out specific conditions precedent for operations and services that may commence upon the completion of the project and when the facility is operational. The parties should heavily negotiate the terms of service and define the conditions in which the facility will be in service and operational.

Typically, counsel for the company will draft the Precedent Agreement. However, the customer could greatly benefit from negotiations on certain provisions (e.g., governmental authorizations, acquisition of real property, corporate approvals, financing, etc.) that are necessary for the proposed project to commence. A Precedent Agreement should protect the potential customer from misrepresentation and provide remedies in case the company is unable to comply or meet the terms and conditions memorialized in the agreement.

Although the respective parties typically execute a nondisclosure agreement prior to the drafting and negotiations of a Precedent Agreement, counsel should still include a confidentiality clause which protects the information



exchanged between the parties as it relates to the agreement. The confidentiality clause should mimic and not conflict with the nondisclosure agreement signed and agreed to by the respective parties. The Precedent Agreement (and any other principal agreement) should include a confidentiality provision that nullifies any previous versions of said agreement with respect to the exchange of confidential information.

Nondisclosure (or Confidentiality) Agreement

A nondisclosure agreement (NDA or confidentiality agreement) is an agreement which binds the recipients of another party’s sensitive or proprietary information from disclosing that information to third parties. An NDA also prevents the recipient from using that confidential information for any other purpose outside the purview of the agreement. The purpose of an NDA is to allow parties to freely exchange sensitive information with one another while also protecting their own interests and making an informed decision about conducting business together.

Parties typically enter into an NDA prior to the drafting of a formal agreement for service, project development, or potential business transaction so that confidential information can be shared during the negotiation and due diligence process. There are two types of NDAs: a unilateral agreement when one party (disclosing party) discloses information to the other party (receiving party), and a bilateral agreement when both parties are exchanging confidential information.

The term confidential information should be clearly defined within the NDA. Most NDAs define confidential information as information including trade secrets, confidential, or proprietary information and note the importance of maintaining the confidence of such disclosed information between the parties. Some NDAs may list specific information to be excluded from the term confidential information, such as information that was publicly available at the time of disclosure or information that become publicly available through other means.

A receiving party will be bound throughout the term of the confidentiality agreement and typically for a period thereafter as specified by the agreement. During the term of the NDA, the receiving party is prohibited from using or disclosing information to a third party outside the scope of the agreement and relationship with the disclosing party. Furthermore, the receiving party has a legal duty and obligation to use a certain level of care in handling the confidential information. Most NDAs require the receiving party to use a commercially reasonable amount of care to protect and keep the sensitive information received confidential. A typical NDA will contain a provision allowing the receiving party to disclose the confidential information in certain instances, such as when required by a court order or other judicial proceeding. In such cases, a disclosing party will want to include a provision within the NDA requiring written notice from the receiving party within a reasonable amount of time prior to the disclosure of such information.

NDAs should also provide for the return or destruction of confidential information upon the termination of the agreement. Most recent confidentiality agreements provide for the destruction of digital information by providing that once such information has been destroyed, certification should be sent to the disclosing party to confirm that the destruction has been completed. Parties should also consider the extent to which confidential information should be destroyed (i.e., whether the destruction applies to cloud backups on computers and other digital devices).

Counsel for the disclosing party will want to ensure that a clause within the NDA prohibits either party from assigning the agreement to any other party, whether expressly or by

operation of law. However, the disclosing party may permit the receiving party to assign the NDA to a successor if prior written consent is obtained.

Most NDAs include a remedies provision to provide remedies or damages at law to the disclosing party should the receiving party disclose or misappropriate confidential information. The disclosing party will want language in the NDA reserving its right to reject proposals, decline to send confidential information to the receiving party, and terminate discussion concerning the proposed business transaction without any liability. The disclosing party will also want language stating that if negotiations end and no deal is reached, the receiving party will still have a duty to keep the information confidential.

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Due Diligence

Conducting Due Diligence

Due diligence is a process, typically conducted by counsel of potential customers of the midstream natural gas facility, to assess the creditworthiness, business or financial condition, real property holdings, and other essential details of the company's business and financial standing. The legal due diligence required will vary according to the type of proposed project and facility. In most instances, due diligence will be conducted prior to or during the drafting and negotiation stage of the formal agreements to a midstream natural gas transaction or proposed project development.

Midstream companies that are considering joint ventures or operations with other similarly situated companies in the natural gas market will likely want their counsel to perform legal diligence on the following issues.

Creditworthiness

Counsel for the receiving party should review the disclosing party's creditworthiness within a specific time period of the request. The amount of the guaranty of credit may be dependent upon the analysis of creditworthiness. Furthermore, if noted within the formal agreements to the proposed transaction, creditworthiness analysis may be required to conduct business with the receiving party. At the receiving party's request, the disclosing party or its credit support provider should provide, at a minimum, the following items: audited and unaudited financial statements (including balance sheets); a list of affiliates (if any); credit bureau reports; Form 10-K (if applicable); credit and trade references; and information as to pending litigation, collections actions, or judgments that could be expected to cause a substantial deterioration in the financial condition of the disclosing party. Counsel for the disclosing party will probably reject some of the financial information being requested due to confidentiality concerns. However, as it can assist in identifying issues early on so that they can be resolved in a timely manner prior to the proposed transaction or project development, it is customary for the receiving party to review and analyze such information.

Corporate Issues

It is prudent for the receiving party's counsel to review the organizational documents, certificates of good standing, board resolutions, etc., of the disclosing party. While the disclosing party's counsel may only provide a simple legal opinion or comment with respect to the organizational status and due authorization at the closing of the proposed transaction, it is helpful for all parties involved to identify and resolve any potential issues as quickly as possible.

Liens

As is typical in the midstream natural gas segment, particularly in the pipeline and storage sector, a company may claim a lien on the gas delivered to the facility for charges related to such matters as storage and/or transportation, insurance, labor, and inventory. As such, counsel for the receiving party should conduct lien searches for both secured and unsecured loans early in the proposed transaction process.

Litigation

The receiving party's counsel should conduct an exploratory search on whether there are any known, unknown, or contingent liabilities related to pending or contemplated litigation. To accomplish this in a cost-effective manner, counsel should conduct public record searches (judgment searches) to determine if such litigation or potential litigation is problematic for the proposed business transaction. Counsel should also review any board minutes, resolutions, and audit records that may exist in connection with litigation or pending litigation.

Real Property

The receiving party should inquire as to whether the disclosing party owns or leases real property, especially if those interests are used as collateral. Counsel should coordinate such diligence efforts with its in-house land department or an independent title company.

Environmental and Regulatory Issues

Environmental and regulatory issues are a substantial concern for midstream natural gas companies. The disclosing party's ability to conduct business and financially participate in a proposed transaction could be considerably impacted if it is found liable for damages, remediation costs, fines, and/or penalties. Additionally, the receiving party could be exposed to liability by association if the real property is the subject of the proposed transaction. Counsel for the receiving party should include this issue as an area of inquiry in the due diligence process.

Joint Venture, Joint Operations, Asset Transfer, and Purchase and Sale Agreement

At the conclusion of conducting due diligence, counsel for both parties can begin to draft, negotiate, and review the formal agreements as they relate to the proposed midstream natural gas facility and/or project. With respect to acquisitions and construction of new or existing facilities, some midstream companies may deem it prudent to form a joint venture or jointly operate a facility for the purpose of collaborating on a specific project.

A contractual JV is most appropriate for projects such as a midstream natural gas project due to various components related to constructing a facility (e.g., land, engineering and design, environmental, and regulatory). A contractual JV does not change the structure of the parties' existing business entities.

Joint Venture

With a joint venture (JV), two or more businesses pool their assets, efforts, and/or skills in order to succeed in a midstream natural gas undertaking. A typical JV is formed for a certain activity. It may have a limited lifespan dependent upon a variety of factors or may be created for long-term or even permanent partnerships. A JV is formed by an expressly written agreement between the parties or by the creation of a new and separate legal entity (e.g., a limited liability corporation, partnership, or corporation). Midstream companies may want to create a JV for a variety of reasons: (1) to carefully outline the shared costs, risks, and responsibilities as they relate to the proposed project, venture, or business transaction; (2) to pool and increase profits; and (3) to gain access to or share particular midstream natural gas segments.

A JV is not usually a separate legal entity and in some instances, a formal contractual agreement may be unnecessary as the conduct and course of dealings between the parties shows the intent of a joint venture (i.e., a noncontractual JV). However, a noncontractual JV may give way to unintended and potentially unlimited liability for the other party's actions and/or conduct. There are also inherent risks associated with complex business transactions that involve many technical components, such as a midstream natural gas project. Without a written agreement clarifying each party's rights and obligations associated with the proposed business transaction, the parties involved could be opening themselves up to costly litigation and undue costs.

A contractual JV is most appropriate for projects such as a midstream natural gas project due to various components related to constructing a facility (e.g., land, engineering and design, environmental, and regulatory). A contractual JV does not change the structure of the parties' existing business entities. Counsel for the respective parties can draft indemnity provisions in the JV agreement substantially similar to those used for independent contractors in which a party seeks to shield itself from liability due to the act or omission of another party. The parties should ease liability concerns by carefully constructing indemnification provisions in the JV agreement and having each party maintain its existing legal entity for tax and regulatory filing purposes.

Midstream natural gas companies may also form a JV by creating a separate entity and operation that operates independently from the other co-venturers' respective businesses and entities (corporate joint venture). The new corporation or company (Newco) will be a new legal and business entity and will serve as a vehicle to both parties to further the project's growth and development. Corporate joint venture is a viable resource and is often used by foreign-owned entities to invest in certain countries where foreign-ownership is not permitted. Counsel for Newco will need to ensure that the corporate governance is in line with state and federal laws and regulations to ensure that each owner has a suitable voice in the JV management as intended and agreed to by the parties involved.

Joint Ownership and Asset Transfer Agreements

A joint ownership agreement (JOA) is an agreement that memorializes the contributions and ownership interests of the parties in a new entity. The formation and structure of a JOA is similar to that of a JV. Each party to the JOA contributes assets to and owns shares of the new or existing entity. Such contributions, shares, and ownership interests are properly memorialized within the agreement. A JOA is different from a JV as it describes the specific ownership of the real and physical property and the parties' duties and responsibilities as it relates to their specific ownership interest. For example, two companies own a midstream natural gas gathering facility. However, one party has exclusive ownership of the physical asset that is the facility, while the other party has exclusive ownership of all equipment, personal property, and fixtures of the facility. With JOAs, ownership interest is usually described as a percentage, and in the case of midstream natural gas, may also be described as the amount of working gas (usually in dekatherms) that is gathered, processed, or stored at the facility.

In the case where a certain percentage interest of ownership in the physical asset is being transferred to another party, but joint ownership will still remain as originally contemplated, an asset transfer agreement should be properly memorialized between the parties. An asset transfer agreement provides a historical and factual background of the owners; the physical

and legal description of the asset being sold, granted, and conveyed to the other party; consideration; and any other payments (e.g., closing payments) to be paid once the conveyance has been completed. With a JOA and an asset transfer agreement, counsel for both parties should ensure that each party is solely responsible for their own costs, expenses, and taxes associated with the physical asset.

Purchase and Sale Agreement

Purchase and Sale Agreements (PSAs) are commonly used in acquisitions and divestitures of producing natural gas infrastructures. A PSA is a type of agreement drafted to evidence the transfer of rights, title, and interest of certain assets (e.g., a pipeline) within a gathering system or pipeline infrastructure. Most PSAs start with a preamble to the agreement identifying the parties (Seller or Buyer or Purchaser), type of entity, state of organization, and address. PSAs also usually contain a recitals provision which gives a historical account of the two parties, the particular asset to be sold and purchased, and the general purpose of the PSA. The recitals provision usually appears right after the preamble. Some PSAs contain a separate article for definitions of terms to be used throughout the agreement. If a definition article is included within the PSA, it is common for it to precede the recitals or be a separate exhibit to the PSA. It is strongly suggested that the definitions be included within the body of the PSA for drafting and negotiating purposes.

The first substantive article to appear within the PSA will contain specific, legal descriptions of the asset(s) being conveyed and granted to the purchaser. This section may also include any equipment, appurtenant facilities, easements, right-of-ways, surface leases, permits, licenses, and other real property that are to be conveyed and granted along with the initial asset for purchase and sale. Counsel for seller should be aware that if easements, right-of-ways, surface leases, etc. are being conveyed and granted in connection with the asset, separate agreements (e.g., easement and right-of-way) will need to be drafted, negotiated, and included separately as an exhibit to the PSA. The PSA will often specify certain assets that are to be excluded and clarifies who will remain responsible for such assets (e.g., corporate, financial, tax, and legal records). Excluded items are a heavily negotiated provision for both seller and purchaser.

PSAs must also state the consideration or purchase price for the conveyed asset. This article typically begins with a contractual provision such as: "Subject to the other provisions hereof, in consideration of the sale of the Assets by Seller to Buyer, Buyer shall pay to Seller in cash, the amount of [dollar amount] (the Purchase Price)." The seller and buyer may also negotiate the amount of the purchase price and if it will include or exclude

certain taxes, costs, and fees associated with the conveyance. A closing article may or may not be separate from the Purchase Price article as it provides a mechanism for the parties to agree on any estimated adjustments in anticipation of the closing. The closing article will also note or define the effective date of the PSA.

Most PSAs cover the representations and warranties of the seller. These are representations which, if materially breached, may give rise to termination of the PSA by the buyer and a possible cause of action for damages against the seller. Counsel for the seller should craft the language in this article to assure the buyer that it is getting that for which it paid, but also to protect both parties from any underlying issues, should they develop. Counsel for seller will often thoroughly negotiate this article—including exclusions and limitations, notice, length of duration, etc., in an effort to minimize risks associated with the representations and warranties. It is also helpful to include an indemnities section which will protect both parties against any fines, actions, claims, suits, or liabilities in connection with the conveyed asset. The seller and buyer will typically make general representations focused on assuring the respective parties that the PSA and other associated proposed transactions will be fully enforceable against the other party. The common representations made in a PSA are organization and existence, power and authority, valid and binding agreement, non-contravention, and pending litigation.

Each party should agree to the following mutual covenants as preclosing actions: (1) use commercially reasonable efforts to take (or cause to be taken) such actions as may be necessary to consummate the transaction, such as obtaining waivers and consents, filing any required governmental notifications, and responding to government inquiries; (2) notify the other party of any relevant new or pending litigation commenced or threatened or the discovery of any fact or condition that would cause a representation of either party to be inaccurate; (3) cause the other party's conditions to closing to be fully satisfied; and (4) not take any actions that would result in a breach of any representations or make such representations inaccurate.

The buyer should negotiate to include a right to audit article within the PSA as a mutual covenant. The right to audit article should be for the term and the seller should make all relevant files and records available for inspection and review by the buyer. The seller may counter that article by including language limiting the time available for the buyer to inspect records and requiring a representative be on site during the review and inspection.

After closing of the PSA, it is typical for the seller to deliver the executed documents, associated agreements, and any other records to the buyer. However, the closing, execution,

and recording of the documents is a negotiated point to be ultimately agreed upon by both parties.

Natural Gas Market Segment

The North American midstream natural gas infrastructure consists of pipelines, processing facilities, compressor stations, interconnects, hubs, and related infrastructures for transporting natural gas from underground well sites and preparing the gas for consumer consumption. Issues related to the midstream sector such as increased public and media notice of pipeline infrastructure development and construction, levels of financial activity in the midstream sector, and increased applications for approval of pipeline permits and infrastructure development with the FERC are of growing importance to midstream natural gas companies and the attorneys who represent them. Due to the intricate nature of the midstream natural gas infrastructure, a brief factual background and description of the formal agreements and regulations are warranted.

Gas Gathering and Processing System

Midstream gathering and processing of natural gas and crude oil involves processing oil and natural gas liquids (NGLs) into marketable products. Midstream companies operate vast networks of low-pressure gathering pipeline systems that transport natural gas from a large number of wellheads into pipeline webs that bring gas through takeaway pipelines. Gathering pipelines are smaller in diameter and calibrated for flows of lower pressure than distribution pipelines. These products continue into the refining processing portion of the

downstream segment of the business by being shipped through a web of pipelines, stored, and then transported.

Different production areas throughout the United States and Canada dictate different gathering systems. Although gas gathering is exempt from federal regulations, midstream counsel should be aware of the states that do regulate gathering (or intrastate) facilities and pipelines. The weight of the regulations vary from state to state, but the following are a few requirements intrastate facilities and pipelines must meet: (1) facilities and pipelines must abide by the state common access requirements, (2) facilities and pipelines must perform under state common carrier obligations which require gas to be transported without discrimination, and (3) facilities and pipelines must recognize anchor or fundamental shippers. Firm shippers that financially commit to long-term contracts for pipeline capacity utilization are known as anchor shippers. Anchor shippers are typically committed through Precedent Agreements in the beginning stages of midstream natural gas project development, pipeline, and facility construction. Some gathering systems may need one or more compressors to move the gas to the pipeline or to the processing plant/facility.

Gas processing is the industrial process of separating NGLs from methanes. Natural gas must be processed to produce natural gas within specifications imposed by major transportation pipelines. The extraction process for the NGLs is dependent upon the capacity available at processing plants. While some field processing of raw streams of natural gas can be accomplished at the wellhead, the complete processing of natural gas occurs at processing plants and facilities.



Due to the intricate nature of processing gas and NGLs, the largest regulatory issue present with processing plants is environmental compliance.

Natural gas processing capacity in the United States has climbed significantly in recent years and is set to further increase. As NGLs are extremely valuable byproducts of gas processing, current NGL pricing makes NGL extraction a key value driver in negotiations of gathering and processing agreements. Gas containing a significant amount of NGL is known as “wet gas,” while gas that flows through pipelines to consumers is known as “dry gas.” Fractionation plants receive the wet gas to further separate NGLs through a method called fractionation. To further the goal of processing wet gas into dry gas of pipeline quality within set specification levels, plants must then remove oil condensate and water, separate the NGLs, and remove sulfur and carbon dioxide.

Traditionally, processing is not a federally regulated segment. However, it may be regulated if the natural gas is processed by a gas processing company which owns interstate pipelines and other midstream infrastructure. State public service commissions regulate processing facilities, but do not normally assess fines and penalties for failure to comply with such rules and regulations. Due to the intricate nature of processing gas and NGLs, the largest regulatory issue present with processing plants is environmental compliance. Currently, more than half of the current natural gas processing plant capacity in the United States is located offshore, in Texas, and in Louisiana. However, this is shifting with recent shale gas resource development in several U.S. regions. Counsel should consider that state regulation varies with respect to gas processing. However, there are key rules and regulations that should be addressed when drafting formal agreements: (1) similar common carrier or common access regulations as for gas gathering; (2) some states may require prorationing of processing capacity; (3) while states may require the acknowledgement of anchor shippers, states may not require the same for gas processing; (4) states maintain broad nondiscrimination principles which can affect and govern the rates and access for NGL transportation.

With the quick pace of shale resource development in certain parts of the country, midstream infrastructure and project

development continue to exceed current expectations. With the rise of a robust midstream segment due to significant increase in the natural gas development, midstream companies are focusing on revamping the gathering and pipeline infrastructure. This includes construction and installation of new pipelines, increased maintenance work at wellheads, investments in liquid fractionation facilities, liquefied natural gas export facilities, oil gathering lines, and compression and pumps for gathering systems. Counsel for midstream companies are inundated with gathering and processing agreements in an effort to keep up with the increased infrastructure development to support the increase in supply and demand.

Gas Purchase Agreement

A natural gas purchase agreement is a contract whereby gas is purchased in anticipation of the construction or operation of a natural gas gathering system. A typical gas purchase agreement involves a seller that owns a number of oil and gas, mining leases, or rights associated with those leases and wants to deliver or sell the gas associated with the producing wells attached to those respective leases. The agreement provides the terms and conditions surrounding the delivery and receipt points of the gas from the seller to the buyer. Furthermore, the agreement details the associated costs and responsibilities with the construction of facilities necessary for the delivery and receipt of gas to respective gas gathering systems.

Counsel for sellers will want to reserve certain leasehold rights related to the gas produced. Counsel for both parties will want to clearly outline the ownership and responsibilities associated with the delivery points for the gas and spell out when the buyer will hold title to the seller’s gas. As the gas being delivered must be of a certain quality and temperature to flow through respective gas gathering systems, counsel for buyer should strongly negotiate terms concerning gas quality specifications and the various methods in which the seller can treat the gas before it is delivered to a respective receipt point. A heavily negotiated term between both parties will be the consideration associated with delivering gas to the buyer and the method by which that consideration is calculated. Most gas purchase agreements calculate the delivery price by the value of plant products and the surplus residue attributed to the seller’s gas. Additionally, counsel for both parties will want to provide certain provisions concerning the gas volume, the operation and maintenance of meters, and warranties related to the flow of gas by the seller. A typical gas purchase agreement will also provide remedies and notice requirements for both the seller and the buyer, in the event that gas is unable to be received and/or delivered to its respective points. With this agreement, indemnity provisions should also be drafted and negotiated in an effort to protect the various interests. Most gas purchase

agreements will also include a definition and extensive provision for force majeure and notice requirements associated with claiming a force majeure.

Gas Gathering Agreements

A gas gathering agreement is an agreement which memorializes the ownership and operations of natural gas gathering systems between the gatherer and the producer. There are varying forms of gas gathering agreements. Some midstream natural gas companies will draft gas gathering agreements in which the company dedicates all of the natural gas owned or controlled by them and produced from or attributable to existing and future wells within acreage(s) dedicated in a specific region (e.g., Barnett Shale, Eagle Ford Shale, Mid-Continent, Marcellus Shale regions). A dedicated acreage contract is a contractual provision which declares that all gas produced from the dedicated acreage is dedicated by a gatherer to a company (often a producer). Acreage dedication contracts are longer term gathering agreements and are typically in regions with rich natural gas development. In acreage dedication contracts, producer customers are generally required to deliver all of their production within the dedicated area to the respective gathering system over the duration of the agreement. Counsel for gatherers and facilities prefer to have a long-term fixed-fee based agreement, particularly if a gathering plant is slated to be newly constructed or upgraded to increase natural gas processing capacity.

Depending on the gatherer, the contemplated long-term agreement and partnership with the producer, the proposed transaction, and the business model contemplated by the gatherer, some midstream natural gas companies prefer to propose volume commitments instead of dedicating acreage for a long period of time. With volume commitments, gatherers and producers agree on an annual minimum volume commitment of natural gas on the gatherers’ respective system or, in lieu of shipping such volumes, producers pay gatherers a periodic fee, as if that minimum amount has been shipped. In negotiating this provision, counsel for both parties should specify the exact percentage each party is responsible to attribute to the annual volume commitment. Gatherers may prefer gathering agreements containing the volume commitment provision as it provides the plant/facility with stable cash flows.

Rate structures used in gas gathering agreements are largely structured and similar to those used by interstate pipelines and storage facilities. The rate structures normally used in gas gathering agreements are: (1) fixed fee, (2) sharing/in-kind, (3) variable, and (4) cost-of-service. The agreements also typically contain provisions related to the producer’s (or shipper’s) title to the gas and clauses related to maintaining

sufficient delivery pressure. Counsel should heavily negotiate the gas quality and specifications provisions of the gas and provide for remedies should non-specification (or non-spec) gas be delivered to a particular receipt or delivery point.

Gas Processing Agreements

Under FERC Order 636, interstate pipeline companies were required to change from buying and selling natural gas they transported to selling the transportation service only. This required the natural gas industry to restructure ownership of natural gas processing plants across the country. Today, midstream companies or operating divisions own and operate most processing plants. Consequently, as the natural gas pipeline network has become more efficient and regulated in specific regions, there is more of a need for increased and better natural gas processing, both in the number and operational efficiencies of natural gas processing plants.

The primary role of a natural gas processing plant in the current midstream marketplace is to produce pipeline quality natural gas. Gatherers and producers consider the production of NGLs and other byproducts from the natural gas stream to be a welcome benefit of processing. The quantity and quality of the production of byproducts is in direct correlation to current market prices.

In the past, counsel for processing companies would draft keep whole agreements. Under this type of agreement, NGLs recovered at a processing facility are retained by the processing company as payment, while the other party’s delivery of gas is kept whole by returning the residual natural gas at the tailgate of the processing plant. With the robust natural gas market in recent years, some processing companies have moved away from keep whole agreements, as these types of agreements can create income uncertainty. However, the keep whole agreement is still frequently used by processing companies in an effort to lock in gas supply. From a practical standpoint, keep whole agreements are only profitable when the value of NGLs is greater than the value of the separated liquid as a portion of the residue natural gas stream. Nevertheless, counsel for processors should consider that exposure to commodity prices in the NGL market changes the risk profile.

Processors that have moved away from keep whole agreements have replaced them with alternative and more complex natural gas processing agreements: (1) percent-of-liquids or percent-of-proceeds, (2) percent-of-index, (3) margin-band, (4) fee-based, and (5) hybrid agreements.

A percent-of-liquids (POL) or percent-of-proceeds (POP) agreement is a certain type of agreement in which the processor takes title of an agreed upon percentage of the NGL mix extracted from the producers’ natural gas stream.

The producer either retains title to or receives the market value of the remaining NGL mix. As a result, producers reimburse the processor for costs associated with the liquids extraction process. In a POL agreement, the processor takes a percentage interest of the extracted NGL as payment for services rendered and markets the NGL independently from the producer. Counsel should be aware that with POL and POP agreements, the processor is completely and fully exposed to the commodity risk. Therefore, a processing company will need to have an active marketing and business development group to ensure the best NGL returns. It is also helpful if a processing company has an industrial and/or chemical load nearby so that costs are minimized with respect to NGL mix extraction.

With a percent-of-index agreement, the processor agrees to purchase its natural gas at (1) a percentage discount relative to a certain index price, (2) a certain index price less a fixed amount, or (3) a percentage discount relative to a certain index price minus an additional fixed amount. The processor can then resell the natural gas at the index price or at a different percentage discount to the index price.

Under a margin-band agreement, the processor takes title to the NGLs extracted from the natural gas stream delivered by the producer. In return, the producer is paid based on the energy value of the NGL mix less the fuel consumed in the extraction process. Counsel for both parties will negotiate the acceptable specified floor and ceiling return levels with the intent of presenting an acceptable rate of return to each party. This agreement is typically used when natural gas processing economics have leaned towards negative returns or economic gains become disproportionate.

A fee-based agreement is an agreement in which the processor and producer negotiate the fee based on the anticipated volume of processed gas. The producer can either retain title to or receive the value associated with the extracted NGLs, but remains responsible for all energy costs associated with the natural gas and NGL processing. In determining which agreement to use as a processing agreement, counsel should note that fixed fees limit the upside of earning potential for a processing plant. To that end, a fee-based agreement may be more profitable for the producer. However, with a fee-based agreement, the processor has no direct commodity exposure as returns are fixed by rate and vary dependent upon the anticipated volume of processed gas. In negotiations, counsel for a processor should consider the current demand for processing as it is also linked to current NGL prices.

Typical hybrid agreements provide for the producer to receive processing services under a monthly POL arrangement. After a specified period of time, the producer will have the option to switch to either a fee-based or keep whole arrangement.

As it provides an incentive for both producer and processor to maintain operations during a volatile period in the natural gas market, parties typically use this type of processing agreement when there are increased periods of natural gas market fluctuations.

Terms for gas processing agreements vary and range from month-to-month to the life of the producing facility. Some parties may prefer limiting the terms of the agreement from one to 10 years dependent upon the type of agreement and any market constraints.

Gas Balancing Agreement

Most gas balancing agreements are used by operating personnel to remedy issues related to imbalances or disproportionate production of natural gas, NGLs, and other related hydrocarbon liquids. The agreement defines the term gas and sets out the terms and conditions related to the gas produced from wells under certain oil and gas leases and/or oil and gas interests and delivered by the operator to gas purchasers. A gas balancing agreement may also be used in conjunction with a JOA. The agreement outlines the responsibility of the operator in balancing the gas and hydrocarbons and the production accounts between the respective parties. Provisions concerning nonmarketable gas production are provided for within the agreement. Counsel should be mindful of remedies associated with both overproduction and underproduction of natural gas.

Transmission System (Transportation/Shipping/Storage)

From the gathering and processing system, the natural gas flows into the transmission system. Midstream natural gas transmission lines are wider in diameter and navigate the often long distances between the gathering systems, processing plants, and ultimately, distribution network. The current transmission pipeline infrastructure is designed as a trunk line system, with a large number of lateral pipelines branching off the main line system to form interconnections that receive the processed gas and deliver it to end users for further marketing and distribution. As noted above, natural gas that is transported through the interstate and intrastate pipeline network is federally regulated by the FERC under the Interstate Commerce Act (ICA) and state public service commissions (although state regulation varies).

Open Access

Under the NGA, the FERC requires that interstate pipelines and storage companies provide open access and information with respect to the transportation and storage of natural gas on a nondiscriminatory and non-preferential basis. This means undue discrimination or preferences in the duration or quality of services, in the categories, prices, or volumes of gas to be



transported or stored, or in customer classification is strictly prohibited. Furthermore, transportation and storage services of natural gas must be provided “on a basis that is equal in quality for all gas supplies transported under that service, whether purchased from the pipeline or another seller.” A pipeline or storage provider is required to enact commercially reasonable operational conditions within its respective FERC Gas Tariff.

The Natural Gas Policy Act of 1978 (NGPA) provided even more oversight to the FERC as it relates to the interstate transportation and storage services from the sale of natural gas. As previously mentioned, pursuant to Section 5 of the NGA and NGPA, the FERC began a process which opened up interstate natural gas companies to other pipeline companies that wanted to transport their own natural gas on interstate systems. The main objective with the NGPA was to eliminate duality of the interstate and intrastate pipeline market that existed at the time of promulgation. After the enactment of the NGPA, the FERC enacted open access rules for interstate pipeline companies’ unbundled transportation and storage services, and also ordered each interstate pipeline company (and storage provider) to file a FERC Gas Tariff to state the terms and conditions upon which the company would provide its stand-alone transportation and storage services and the rates in which those service would be provided to shippers.

In an effort to facilitate this open access process, Section 311 of the NGPA allowed intrastate pipelines, subject to certain conditions, the ability to transport natural gas in the interstate natural gas market, on behalf of interstate pipelines and local distribution companies served by the interstate pipelines. The FERC has defined an intrastate pipeline as any person or company engaged in natural gas transportation (not including gathering) that is not subject to the FERC’s oversight under the

NGA. More importantly, the NGPA stipulated that intrastate pipeline companies could provide those services without being subject to the FERC’s regulations. Intrastate services are met with FERC oversight under the NGPA, which established different standards for approvals of rates and terms of services, while maintaining that intrastate pipelines and accompanying services are exempt from FERC regulation.

Section 311 of the NGPA is not applicable to non-FERC jurisdictional companies, also known as “Hinshaw companies” (e.g., local distribution companies with high-pressure facilities and independent natural gas storage providers in the intrastate market). Hinshaw companies are exempt from FERC regulation, but have the same benefits as Section 311 intrastate pipelines. The FERC has imposed regulations that authorize Hinshaw companies to apply for authority to transport natural gas in interstate commerce in the same manner as those Section 311 intrastate pipelines. Intrastate and Hinshaw companies are required to have FERC-approved rates on file with the FERC; terms of service must be filed in a Statement of Operating Conditions. A Statement of Operating Conditions is similar to that of a FERC Gas Tariff, but has a more condensed version of terms and conditions of service. The FERC has limited regulation of Hinshaw companies and these companies continue to provide intrastate services that are outside of the FERC’s oversight and jurisdiction. However, under the Energy Policy Act of 2005 (EPAct 2005), the FERC has the authority to penalize intrastate and Hinshaw companies up to \$1 million per day for any violation of the NPA. EPAct 2005 provides the FERC with broad authority to define and prohibit manipulative, fraudulent, and deceptive activities in interstate natural gas markets.

The FERC may require pipelines to change rates charged by a pipeline when it can be demonstrated that those rates are no longer just and reasonable. The FERC can initiate this proceeding on its own accord or through a complaint by an interested party.

Blanket Certificate Authorization

As noted above, under Section 7(c) of the NGA, interstate pipelines and storage providers may construct, modify, acquire, operate, and abandon a limited set of natural gas facilities and offer a restricted number of services, provided that each activity complies with constraints on costs and environmental impacts as set forth in various FERC regulations.⁸ There are two types of blanket certificate projects: those that qualify for self-implementation or automatic authorization from the FERC, and those that require prior notice to the public. For automatic authorization, the construction for the specific project development must have a value of less than \$11 million.

In 1985, the FERC revised its transportation service authorization regulations. Under Order No. 436, the FERC agreed to provide blanket authorization for unbundled transportation services by interstate pipeline companies, conditioned upon the pipeline companies providing those services on an open-access and nondiscriminatory basis (see Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, FERC Stats & Regs. ¶ 30.665 (1985) (Order No. 436)). Furthermore, pursuant to Order No. 436, the FERC determined that any pipeline company with blanket authorization would be required to allocate capacity to shippers on a first-come, first-serve basis. This presented issues with existing shippers selling or assigning portions of their capacity rights to other interested parties and on a preferential basis (i.e., capacity brokering).

Accordingly, the FERC established the shipper-must-have-title rule (SMHT), which requires that a shipper have title (i.e., ownership) of the natural gas at the time of delivery to the FERC-jurisdictional pipeline or storage company and throughout the period that such gas is transported and stored. Interstate pipeline and storage companies are also required to incorporate the SMHT requirement within its respective FERC Gas Tariff. The FERC implemented the policy in an effort to prevent shippers from capacity brokering and to assist in nondiscriminatory access to transportation capacity. Furthermore, in its capacity release program, the FERC

requires interstate pipeline and storage companies to adopt tariff provisions that require shippers to warrant good title to the natural gas tendered to them under their respective service agreements. The FERC requires the shipper to hold title throughout the entire course of transportation of the gas. Specific Tariff language may vary depending on the interstate pipeline and storage company. Limited waivers are available to interstate pipeline and storage providers, but only under limited circumstances.

Cost-Based Rates

As noted above, the NGA provides that rates charged for interstate pipeline services must be just and reasonable. Under cost-of-service ratemaking, rates are established based on an interstate pipeline's cost of providing service with a further financial incentive for the pipeline to earn a reasonable return on the investment. The FERC uses five steps to determine cost-of-service ratemaking: (1) establishing a revenue requirement, or cost-of-service; (2) functionalizing the cost-of-service; (3) cost classification; (4) cost allocation; and (5) rate design.



The FERC sets the rates for interstate pipelines in a number of proceedings. If an interstate pipeline company seeks to increase the rates that it charges for service to its current and prospective customers, the company must make a filing to the FERC under Section 4 of the NGA (also known as a “general Section 4 rate case”). The FERC will then review all of the pipeline’s rates and services. The burden falls to the pipeline to demonstrate that the new proposed rates are just and reasonable. Section 4 rate increase application filings are often suspended and set for hearing by FERC order. Once the application is set and posted for hearing, it is processed by the FERC’s litigation staff in the Office of Administrative Litigation. In some instances, counsel for the pipeline may have to negotiate with customers regarding the increase in rates for service. If the issue cannot be resolved between the parties, a hearing is held before an administrative law judge. Ultimately, the FERC will act upon either the settlement between the parties or the record in the hearing. There are also “limited Section 4 rate case” filings which are used when a pipeline wants to add a new service and establish new rates for said service. These must also be addressed and reviewed by the FERC.

Under Section 5 of the NGA, the FERC may require pipelines to change rates charged by a pipeline when it can be demonstrated that those rates are no longer just and reasonable. The FERC can initiate this proceeding on its own accord or through a complaint by an interested party. In this type of proceeding, the FERC ultimately has the burden to prove that the pipeline’s current rates are no longer just and reasonable.

The FERC may also set rates for a pipeline under Section 7 of the NGA. As previously noted, under Section 7(c) of the NGA, a pipeline must file a request for a Certificate of Public Convenience and Necessity to construct a new pipeline or expand existing facilities in an effort to offer new or additional services. The rates provided for in the application and subsequently established by the FERC under Section 7 for these services are referred to as initial rates and generally remain in effect until a pipeline files a Section 4 general rate case filing. The FERC also sets rates for intrastate pipelines under Section 311 of the NGPA. As referenced above, intrastate pipelines are allowed to transport gas for interstate pipelines and LDCs in interstate commerce without being subjected to the FERC’s regulation under the NGA. The rates established under Section 311 must meet a fair and equitable standard, as opposed to the interstate pipeline standard of just and reasonable. The FERC sets the rates for Section 311 facilities by using the same cost-of-service methodology under the NGA. However, since intrastate pipelines are regulated by their respective state

agencies, the pipeline may choose to use an approved cost-based rate on file with that particular state agency.

Market-Based Rates

An interstate pipeline company or storage service provider seeking to charge market-based rates must file an application to charge market-based rates with the FERC for authorization. In its review of the application, the FERC must find that the applicant (i.e., pipeline company or storage service provider) has little to no market power. In other words, it must find that the market is sufficiently competitive to preclude the pipeline from profitably maintaining prices above competitive levels for a prolonged period of time. An application to charge market-based rates must: (1) include a description of the proposed service; (2) define relevant product and geographic areas and markets; (3) provide details concerning the pipeline or storage service provider’s ownership; (4) list affiliated energy companies, services provided at those affiliates, and their location; (5) detail good and reasonable alternatives to the proposed service (i.e., which parties provide similar services within the same geographic market); (6) include market share and Herfindahl-Hirschman Index (HHI) calculations to measure market concentration; (7) discuss any other relevant competitive factors (e.g., ease of entry and excess capacity held by competitors); and (8) describe how the applicant’s proposed rates compare to that of its competitors. The HHI is used as an initial screen to determine market concentration between an applicant and similar competitors/suppliers. It is not to be viewed as a definitive statement as to whether the applicant can exercise market power.

Tariffs and Service Agreements

In order to conduct business in the midstream natural gas market, all interstate pipeline and storage companies under the FERC’s jurisdiction must have a tariff or FERC Gas Tariff. A FERC Gas Tariff is part of a contractual agreement between the midstream natural gas company and its customers. The actual contract is known as a service agreement and incorporates by reference the provisions in the FERC Gas Tariff that are applicable to a specific service. A shipper and customer do not negotiate the terms and conditions of a FERC Gas Tariff prior to it being filed with the FERC. Therefore, it is the responsibility of the customer (and respective counsel) to read the rights and obligations associated with a company’s FERC Gas Tariff so that they understand the applicable pipeline or storage company’s terms and conditions of service and type of service(s) being provided prior to entering into a binding service agreement. Violations of FERC-approved Tariffs have been treated as violations of not only the FERC’s regulations, but also as violations of the NGA, which may levy strict penalties and fines. The FERC mandates that the FERC-approved Tariffs

⁸ See 18 C.F.R. 157.201–157.218.

Related Content

For an operational balancing agreement with practical guidance, drafting notes, alternate clauses, and optional clauses, see

> [OPERATIONAL BALANCING AGREEMENT \(PIPELINE AND STORAGE OPERATORS\)](#)

RESEARCH PATH: [Energy & Utilities > Midstream Oil & Gas > Gathering, Processing, Transportation & Storage > Forms](#)

For a detailed review of the application of the National Environmental Policy Act (NEPA) to the energy industry, see

> [1 REGULATION OF THE GAS INDUSTRY § 9.02](#)

RESEARCH PATH: [Energy & Utilities > Midstream Oil & Gas > Midstream Oil and Gas Construction & Project Development > Secondary Materials](#)

For information on the key ratemaking standards that are pertinent to transportation, see

> [1 REGULATION OF THE GAS INDUSTRY § 8.05](#)

RESEARCH PATH: [Energy & Utilities > Midstream Oil & Gas > Midstream Oil and Gas Construction & Project Development > Secondary Materials](#)

must be posted on the interstate pipeline or storage company's website(s). A typical FERC Gas Tariff contains a description of the pipeline or facility, types of service and rates and charges applicable to that particular service, general terms and conditions of service, North American Energy Standard Board (NAESB) business practice standards (some incorporated by reference within the Tariff itself), and pro forma service agreements.

Every Tariff filing is required to have a transmittal letter, attachments (including supporting documentation and worksheets), and the proposed amended tariff records (which are required to be in tariff text in eTariff required format). The transmittal letter is typically drafted and submitted by the company's counsel and identifies the company and its contacts, the applicable section of the FERC's regulations, the action it is requesting of the FERC, the documents and tariff records it is submitting in support of its request and any other statements or opinions deemed necessary to complete its Tariff filing.⁹

and any certifications or attestations that are relevant to the action requested.

A pro forma service agreement is a form agreement that sets forth the standard terms and conditions that will enforce the service at an interstate pipeline and storage company, usually leaving blanks for information such as (1) the rate schedule relevant to the particular type of service(s) provided; (2) the quantity or volume of the natural gas that the customer will be entitled to transport or store; (3) the primary term of the service agreement and extension rights (as necessary); and (4) any special terms and conditions with respect to the rates, charges, etc. A service agreement will be considered a materially nonconforming agreement only if it contains a provision that goes beyond the blank spaces with the appropriate information allowed by the FERC Gas Tariff and applicable FERC orders, and affects the substantive rights of the parties. A service agreement that is considered a nonconforming agreement to the applicable pro forma service agreement must be filed with the FERC for approval. If an interstate pipeline company and customer agree to the terms of a nonconforming agreement, counsel for the company will be responsible for filing the nonconforming agreement with the FERC as well as providing an argument to the FERC as to why such an agreement should be approved. The FERC will only approve those nonconforming agreements that are considered just, reasonable, and not unduly discriminatory.

A materially nonconforming term is called a material deviation from a pro forma service agreement. The FERC has ruled that material deviations from a pro forma service agreement fall into two general categories: those that are prohibited due to the potential for undue discrimination among customers and those that can be permitted without a significant risk for undue discrimination.

A prohibited material deviation is one in which a provision is related to an operational condition of service (see Regulation of Short-Term Natural Gas Transportation, Services, and Regulation of Interstate Natural Gas Transportation Services, FERC Stats & Regs. ¶ 31,091 at P 31,344 (2002) (Order 637), citing "scheduling imbalances, or operations obligations like Operational Flow Orders"). The FERC will only approve material deviations if the applicable FERC Gas Tariff would make the requested material deviation applicable to other similarly situated customers.

An example of a permissible material deviation to a pro forma service agreement would be one that contains a negotiated, discounted rate for service (i.e., a rate that is between the



minimum and maximum rates approved by the FERC for that particular service). Typically, a FERC Gas Tariff will provide a rate ceiling and floor for each service provided. The pipeline or storage company is free to charge a rate anywhere within the prescribed range, on a nondiscriminatory basis, in order to meet competition. This is particularly true of those pipeline or storage companies that are authorized by the FERC to charge market-based rates. Examples of negotiated rates of services include seasonal rates, term rates, and index-based rates. The FERC has also been known to approve material deviations that do not relate to operational matters (see, e.g., FERC Order 637, at P31,344), such as those relating to "the price, the term of service, the receipt and delivery points, and the quantity or volume of natural gas."

In negotiations of permissible material deviations, counsel for both parties should review relevant FERC orders in an effort to make sure that the particular pro forma service agreement is in compliance with the FERC's policy concerning nonconforming service agreements. Both parties (customer and company) should note that the FERC has the authority to levy heavy fines against the parties. Should the FERC find the proposed nonconforming term to be an impermissible material deviation, the parties will need to renegotiate the service agreement. As such, parties should include remedies or other benefits in nonconforming agreements to compensate for the potential loss of revenue if a nonconforming term is rejected by the FERC.

Changes to a pipeline or storage company's FERC Gas Tariff, either pursuant to Section 4 or 5 of the NGA, can have a tremendous impact on a customer's rights. Standard service agreements include a Memphis clause, which allows a pipeline or storage company to seek authorization from the FERC to amend its customers' rate and terms of service under its respective FERC Gas Tariff. Customers are able to intervene and comment on the proposed changes and may argue that the proposed changes do not satisfy the standards under Section 4 of the NGA. However, it is ultimately up to the FERC to decide whether to approve changes to the FERC Gas Tariff. It is imperative for customers to monitor the FERC filings of the pipelines and storage companies that provide them service. Under Section 4, the pipeline or storage company has the burden of providing support for its proposed changes. The shipper may provide compelling evidence as to why the FERC should outright reject or seek further inquiry into the proposed changes to the FERC Gas Tariff.

Pipeline and infrastructure development, interstate, and pipeline companies may permit certain contractual preferences to shippers at newly constructed facilities to entice them to become anchor shippers in the interstate market.

Natural gas that is received and transported by major interstate and intrastate pipelines and mainline transmission systems must meet quality standards as specified by pipeline and storage companies in their general terms and conditions in their respective pro forma FERC Tariffs. The gas quality standards imposed by these companies vary from pipeline to pipeline and are typically a function of the pipeline system's design, its interconnecting pipelines and appurtenant facilities, customer base, and storage facility.

Statement of Operating Conditions

Under Section 311 of the NGPA, an intrastate pipeline or storage facility that is transporting natural gas on behalf of other intrastate pipelines and LDCs served by an interstate pipeline must file (1) rates and charges and (2) a Statement of Operating Conditions (SOC) or Tariff with the FERC. An SOC describes the operating conditions under which an intrastate pipeline or storage facility provides various services (e.g., natural gas transportation, storage, or other related services) at the pipeline or facility. An SOC also outlines the transportation or storage service transaction rendered pursuant to a master service agreement (Master Service Agreement) and subject to the requirements of Section 284.123 of the FERC's regulations. Negotiations of service rates, charges, scheduling of receipts, and deliveries of gas between a pipeline or storage facility typically take place within the Master Storage Agreement (MSA) and the associated standard confirmation form. Like the FERC Gas Tariff, the SOC is a nonnegotiable operating

⁹ See 18 C.F.R. § 385.203.



statement that provides the terms and conditions of services provided by the pipeline or storage company and offered to interstate and intrastate customers.

An SOC should include (1) a title record that identifies the company and company contact information; (2) a rate summary record that lists all applicable charges, rates, and fees for each service provided under the SOC;¹⁰ (3) a statement of all terms and conditions of service for all offered interstate services;¹¹ and (4) if required by the FERC, a section on the company's standards of conduct.¹² Additionally, an SOC filing should include a transmittal letter and SOC record in the eTariff required format. The SOC documents should state the terms and conditions of service for any service not offered to interstate shippers. Any supporting documentation for the filing (e.g., transmittal letters, court or FERC orders, and rate deviations) should also be included.

Master Storage Agreement and Confirmation

An MSA and Confirmation is an agreement construed in accordance with the SOC. Operating terms and conditions are typically incorporated by reference. The agreement of service provided by the Section 311 pipeline or facility is formed based on the provisions of service in the MSA and transaction-specific terms that are memorialized in the pipeline or storage

service provider's standard confirmation form (Confirmation). The MSA and Confirmation, which constitute the transaction between the pipeline and storage service provider, are made in accordance with the SOC. Unlike the SOC, the MSA states the terms and conditions in which the customer may transport or store gas, for receipt or redelivery, to intrastate and/or interstate pipelines.

Furthermore, an MSA outlines the terms of the agreement and procedures in which a customer may request service from a Section 311 pipeline or storage service provider (e.g., a customer must execute a confirmation and submit a nomination for service in accordance with the SOC). Most MSAs contain provisions related to security interests and creditworthiness. Depending on the location of the intrastate pipeline or storage service facility, counsel for intrastate pipeline or storage service providers may also want to include language related to security interests and appropriate statutory citations.

Counsel for Section 311 pipelines and storage service providers typically draft the SOC and MSA with the assistance of various in-house business groups (e.g., regulatory, credit, business development, etc). While an SOC is nonnegotiable, the terms and conditions of an MSA and Confirmation are negotiable between the parties. As the MSA is a form agreement drafted by counsel for their Section 311 intrastate pipeline and storage

service provider clients, most MSA provisions are constructed in a way to protect the interests of the intrastate pipeline or storage service provider.

Confirmation

A typical MSA will note that all transactions are entered into with reliance on the fact that the MSA, the SOC, and all related transactions (whether oral or in writing by a confirmation) collectively form a single agreement between the parties. It is essential for a potential customer to read the operating conditions of an SOC along with the MSA prior to executing an MSA and respective confirmation for service. Once the parties agree to the terms of the transactions, the intrastate pipeline or storage service provider should promptly memorialize the terms of each transaction in the confirmation. Terms of a transaction are specific to the agreed-upon service, but should always include service fees, the fee structure, and the term of the transaction period. For example, a confirmation for a firm storage service should also include terms for capacity demand, maximum daily injection quantity, and maximum daily withdrawal quantity.


Interconnect and Operational Balancing Agreements

Interconnect Agreement

An interconnect agreement is an agreement between an interstate or intrastate pipeline and an interstate or intrastate storage service provider that provides specific terms and conditions as they relate to the interconnecting and natural gas metering facilities that connect the storage facility to the pipeline system. The agreement is typically drafted by the storage facility. The purpose of an interconnect agreement is to clearly outline the ownership and responsibilities concerning operation, maintenance, and repair at the interconnect lateral pipeline and associated facilities (e.g., metering site, compression facilities, and other appurtenant facilities). The term of an interconnect agreement can be for the duration of the interconnect or until an effective abandonment process has been approved by the FERC. Parties may choose to negotiate an actual date for the termination of an interconnect agreement. Counsel for both parties should review respective FERC Gas Tariffs and SOC's as they relate to the gas quality specifications and method of measurement associated with the gas flowing in and out of the interconnect.

Operational Balancing Agreement

An operational balancing agreement (OBA) is drafted contemporaneously with an interconnect agreement and assists with facilitating the interconnection between the pipeline system and storage service facility. The purpose of an OBA is to provide terms and conditions to minimize gas imbalances at the meter. Any imbalance that is created when

actual quantities of gas received or delivered at the meter are different than the total aggregated confirmed nomination quantities for the meter is considered an operational imbalance. As such, the agreement puts provisions in place that allow the parties to use their commercially best efforts to expeditiously adjust any operational imbalance toward zero within a specific period (e.g., a calendar month). 

Ms. Deonne Cunningham currently serves as Lead Counsel, NAB Legal Wholesale team, responsible for trading services related to natural gas, electricity, and renewable energy at Direct Energy. She has over 10 years of energy law, marketing, and trading experience and has represented several companies as counsel such as Noble Energy, Inc., Repsol and Iberdrola Energy Holdings, LLC in Houston, Texas. Deonne's practice includes legal issues related to energy matters, including but not specifically limited to, commercial transactions related to marketing, physical and financial derivatives trading for petroleum products, regulatory and compliance, project development and facility operations, real estate, land, and corporate governance. Deonne has significant experience in drafting and negotiating of commercial agreements related to natural gas and/or crude oil gathering and processing, project development and facility operations confidentiality agreements, vendor service agreements, commercial agreements, interconnection and metering agreements, precedent agreements, term sheets, memoranda of understanding, natural gas storage agreements, and interpretation, drafting, and revisions of Gas Tariffs; analyzing of federal and state regulations and orders related to the interstate and intrastate storage and transportation of natural gas and electricity; drafting of applications and other documents related to the authorization of new or expanded service to the Federal Energy Regulatory Commission (FERC), developing processes and procedures for facility and company operations; experience with corporate governance matters, commodities trading transactions involving industry standard agreements (NAESB, EEI, and ISDA), origination transactions and other complex energy transactions, and long-term power purchase and sale transactions; substantive knowledge of natural gas gathering, processing, and transportation agreements; and FERC matters and regulations relating to cost-base and market-base authorization for natural gas pipeline infrastructures. In her current role at Direct, Deonne also provides assistance to Direct's compliance and training programs for NAB personnel related to regulatory compliance matters with the FERC, U.S. Commodity Futures Trading Commission, Department of Energy, other state regulatory agencies, and public utilities.

¹⁰ 18 C.F.R. § 284.123(e). ¹¹ *Id.* ¹² 18 C.F.R. 358.2.

Federal Environmental Regulations Affecting Oil and Gas Operations

This article provides you and your clients with an overview of the federal environmental regulation affecting the oil and gas exploration and production (E&P) industry.



hole—are brought to the surface along with drilling fluids and mud used to lubricate and cool the drill bit, as well as various chemical compounds. Drilling deep and horizontal wells can produce prodigious amounts of this waste, which is generally stored in surface pits or tanks before being disposed of at or near the drilling site (usually by the E&P company).

Environmental regulations ensure that your clients dispose of this waste in an environmentally friendly way, and that complete disposal of waste and rehabilitation of the environment surrounding the well is accomplished by the time drilling is completed. Environmental regulations also require your client, as the owner, to monitor the entire life cycle of an operating well to guarantee the well is properly plugged and abandoned when it has reached the end of its life.

The Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) regulates solid and hazardous waste and underground storage tanks. Its intention was to aid state governments in creating their own waste disposal schemes

Exempt and Nonexempt Waste

Drilling waste is exempt from regulation under the RCRA. However, the RCRA does regulate temporary underground hydrocarbon storage tanks located at or near a well site and other waste associated with drilling operations (e.g., empty drums, solvents used to clean drums or trucks, waste associated with painting and sandblasting, and other solvents, chemicals, and acids used at or around drill sites). In total, hundreds of chemical compounds and other items are listed as nonexempt hazardous waste under the RCRA.¹

THERE IS SUBSTANTIAL ENVIRONMENTAL REGULATION OF oil and gas E&P at the federal and state levels through the Environmental Protection Agency (EPA) and other agencies. Although it is estimated that states conduct between 80 and 90% of all enforcement actions affecting the E&P industry, these actions are often based on federal environmental regulations.

The Need for Environmental Regulation

Environmental regulation is critical to address the environmental impacts of oil and gas E&P, which arise largely because of the methods employed to drill oil and gas wells. As a well is drilled, drill cuttings—rock and mud from the

It is important for you to make your client aware that if exempt and nonexempt waste are mixed, this will often cause the entirety of the waste to be deemed nonexempt, which can significantly increase expenses when dealing with large volumes of drilling tailings and mud that may be tainted by only a small amount of nonexempt chemicals or other waste. A listing of exempt waste, and a discussion of specific nonexempt waste under the RCRA follows:

Exempt Waste

- Household hazardous waste, such as garbage, sanitary waste, and trash
- Agricultural waste, such as waste from crops or animals that is returned to the soil as fertilizer
- Mining overburden returned to the mine site
- Fossil fuel combustion waste, such as fly ash, bottom ash, slag waste, and flue gas emission control waste generated from the combustion of fossil fuel and/or coal
- Oil, gas, and geothermal waste, such as drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy
- Trivalent chromium wastes, as long as it can be proven such waste is not generated through a process that also generates hexavalent chromium
- Mining and mineral processing wastes, including slag from primary copper processing, slag from primary lead processing, red and brown muds from bauxite refining, and phosphogypsum from phosphoric acid production
- Cement kiln dust waste
- Arsenically treated wood
- Petroleum-contaminated media and debris from underground storage tanks
- Certain types of injected groundwater that was reinjected as part of a hydrocarbon recovery operation, if those groundwaters were reinjected prior to January 25, 1993
- Spent chlorofluorocarbon refrigerants from totally enclosed heat transfer and air conditioning systems, provided the refrigerant is reclaimed for further use
- Used oil filters, as long as the filter has been drained of oil utilizing one of the four methods approved by the EPA
- Used oil distillation bottoms that are used as feedstock to manufacture asphalt products
- Landfill leachate or gas condensate derived from certain listed wastes, as long as it does not exhibit any characteristic of hazardous waste and meets certain other requirements
- Waste generated by participants in the Project XL Pilot Project

Nonexempt Hazardous Waste

Hazardous waste under the RCRA is categorized into six separate hazard codes: ignitable waste, corrosive waste, reactive waste, toxicity characteristic waste, acute hazardous waste, and toxic waste. Thus, E&P operators must be careful to ensure solvents and other chemicals used at a drill site do not mix with exempt waste from drilling activities.

It should also be noted that the RCRA implements cradle-to-grave requirements for the hazardous wastes it covers. This allows the EPA to establish controls to monitor compliance with the RCRA and clean up procedures required by the RCRA, and the EPA may impose strict recordkeeping and reporting requirements on any party that generates, transports, treats, or disposes of any nonexempt waste.

Although the vast majority of waste at a drill site is exempt from the RCRA requirements, the RCRA remains a powerful tool for the EPA to enforce environmental standards over ancillary activities that occur at or around a drill site.

The Clean Water Act

The Clean Water Act (CWA) is the primary federal law governing water pollution, passed in an effort to protect the environmental integrity of the nation's waterways. It is administered by the EPA in conjunction and coordination with state governments. The CWA does not cover drinking water, which is covered primarily by the Safe Drinking Water Act (SDWA) (see section on the SDWA below), but it does strictly regulate what types of waste can be discharged into a waterway—whether that be a wetland, lake, river, estuary, or stream. The CWA also covers the discharge of waste at any shoreline or other land if there is potential for that waste to drain or seep into a waterway or wetland.

Types of Regulated Waste

The CWA regulates two types of waste discharge into waterways: point source and nonpoint source discharge. Point source discharge is a discharge that constitutes a “discernible, confined, and discrete conveyance of pollutants to a water body.” Point source discharge may issue from “any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged.”

Nonpoint source discharge, on the other hand, generally results from rainwater or other runoff, seepage, or snowmelt moving over and through the ground, which picks up pollutants along the way and eventually deposits those pollutants into lakes, rivers, streams, wetlands, and other waterways. Legally, any water-based pollution that cannot qualify as point source pollution is categorized as nonpoint source pollution.

¹ See 40 C.F.R. § 261.

Depending on where a well site is located and where waste will be discharged, an E&P operator may be required to obtain as many as four different permits.

Permitting Process under the CWA

The CWA requires an E&P operator to obtain all appropriate permits and certifications related to point source and nonpoint source waste before the operator can discharge certain drilling-related E&P waste into or near a waterway or wetland. Different permits and certifications are required for different wastes to be discharged. These include certifications from a state environmental body under Section 401 of the CWA, permits from the state environmental agency or the National Pollutant Discharge and Elimination System (NPDES) under Section 402 of the CWA, permits from the NPDES (or its state-run equivalent) under Section 403 of the CWA, and permits from the U.S. Army Corps of Engineers (USACE) under Section 404 of the CWA. Depending on where a well site is located and where waste will be discharged, an E&P operator may be required to obtain as many as four different permits prior to beginning work to drill the well itself.

The permitting process in Texas is somewhat more difficult than in other states, because the Texas Railroad Commission (which regulates all oil and gas activities within the state) is not fully authorized by the EPA to implement an NPDES permit program. Thus, any discharge of E&P waste in Texas that would require permitting under the CWA requires permitting by both the EPA and the Texas Railroad Commission.

The following sections discuss the permit-related sections of the CWA that relate to Texas.

Section 401

Section 401 of the CWA requires your E&P operator client to obtain a certification that the planned point source discharge contemplated under a Section 404 permit application (to be approved by the USACE) will meet state environmental and water quality standards. A Section 404 permit cannot be issued without this certification.

Generally, a Type I certification is issued to your clients under Section 401 if your client's project:

- Involves less than 1,500 linear feet of stream
- Involves less than three acres of waters of the United States
- Does not affect rare and ecologically significant wetlands

A Type II certification is issued if your client's project:

- Will affect ecologically significant wetlands of any size
- Involves greater than 1,500 linear feet of stream
- Involves greater than three acres of water of the United States
- Is otherwise not appropriate for Type I certification²

Section 402

Section 402 regulates your client's point source discharge of stormwater "associated with industrial activity" through either the NPDES or the relevant state-sponsored equivalent. If your client's E&P facility discharges or has the potential to discharge stormwater into waters of the United States through construction, clearing, grading, and/or excavation activity, then you need to advise your client that its facility must receive an authorization permit through the NPDES under Section 402. These permits may be individual or general. Individual permits are issued to individual dischargers and are tailored to your client's facility. General permits are meant to cover several different entities that have the same type of discharge, and they set forth requirements applicable to entire categories of covered discharging entities.

The NPDES permit issued pursuant to Section 402 imposes effluent limits for point source discharge that are tied to the technology available to treat the pollutant prior to discharge, and the resulting water quality when the effluent is released into the body of water.

The EPA bases the limits, which vary by industry, on the performance of the best available technology that is economically achievable for that industry. Your clients are not required to use the technology considered by the EPA in setting the limit but are required to achieve the pollution control levels set by the EPA with that technology.

The EPA standard for water quality is based on the minimum allowable water quality standards set by the relevant state environmental regulatory agency.³

It is worth noting that non-contaminated sediment that is released due to uncontrolled stormwater discharge is exempted



from CWA regulation, but if such discharge contains oil or other contamination, you should be aware that your E&P operator client will be liable—even if the discharge was through no fault of its own.

Section 403

If your client is conducting a construction activity that could release potentially contaminated stormwater into a nonmarine body of water, Section 403 requires compliance with technology and water quality-based treatment standards before a permit is issued to your client. Specifically, the section requires that your client treat the discharged waters to federal minimum standards and also requires discharged waters to meet state water quality standards.

If the construction activity will or could release potentially contaminated stormwaters directly into territorial seas, a contiguous zone, or the ocean, then additional limitations are imposed before an NPDES permit will be issued. In such cases, there may be requirements placed on your client in addition to the technology and water quality standards listed above. These may include:

- Ambient monitoring programs designed to determine degradation of marine waters
- Alternative assessments designed to further evaluate the consequences of various disposal options
- Pollution prevention techniques designed to further reduce the quantities of pollutants requiring disposal, thereby reducing the threat to the marine environment⁴

Section 404

Section 404 regulates point source discharge of dredging or fill materials into the waters of the United States—including wetlands—through a permit issued by the USACE. A permit will not be issued if it is practicable to dispose of dredging or fill materials in some other way that is less damaging to the environment, or the nation's waters or water system would be seriously degraded if the proposed disposal activity were to take place.

Before a permit can be issued by the USACE, an operator must obtain a Section 401 state water quality certification from the state entity responsible for enforcement of the CWA, as noted above. Note that although the Section 404 permit is generally issued by the USACE, the EPA retains the right to overrule the USACE's decision to issue a permit.⁵

² For model information on Section 401 water quality certifications, please see the Texas Railroad Commission's guidance at <https://www.rrc.state.tx.us/oil-gas/applications-and-permits/environmental-permit-types-information/discharges/waterquality/>. ³ For more information on the EPA's effluent guidelines under Section 402 of the CWA, see the EPA guidance at <https://www.epa.gov/eg/learn-about-effluent-guidelines>.

⁴ For additional information on the Section 403 NPDES permitting process, see EPA guidance at <https://www.epa.gov/aboutepa/about-office-water#wetlands>. ⁵ For more information on Section 404 permitting, see EPA guidance at <https://www.epa.gov/cwa-404/permit-program-under-cwa-section-404>.



Compliance Monitoring and CWA Jurisdiction

The CWA provides for regular compliance monitoring of waste-generating sites. This is largely accomplished through state agencies, as 46 states have been given authority by the EPA to conduct this monitoring on its behalf, although some states (such as Texas) have only been given partial authority to monitor compliance with the CWA.

In allocating compliance resources, the EPA and the states focus on noncompliance trends and water quality and shift compliance resources based on the amount and type of state and federal resources available. Resources are allocated based

on the type of waste discharged, as well as how long it has been since a site has been inspected.

During an inspection, the EPA or its designate will often request to:

- Review your client's site's spill prevention control and countermeasures plan
- Interview your client's personnel and conduct a walk-through inspection of its site to ensure the site is implementing the spill prevention plan
- Review your client's facility response plan
- Conduct an unannounced exercise at your client's site to ensure implementation of all spill prevention and facility response plans

If the EPA finds that your client violated the CWA during either a desk audit or a site inspection, it will begin an enforcement action. But, before an enforcement action can commence, the EPA must prove that a spill of oil or a discharge of any other covered waste had a "significant nexus" to "traditional navigable waters." This is a relatively new restrictive standard that came into play after the U.S. Supreme Court's decision in the joint *Rapanos* and *Carabell* cases, where developers wanted to develop real estate projects on wetlands adjacent to, but independent from, waters that fell within EPA CWA jurisdiction.⁶ Although the case produced the significant nexus test espoused by Justice Anthony Kennedy in what is viewed as a controlling concurrence, the EPA has issued slightly more aggressive guidance on what water bodies automatically meet this standard. The EPA has stated that the discharge of waste falls within the jurisdiction of the CWA if it is into:

- Waters that are traditionally navigable
- Wetlands adjacent to traditionally navigable waters, including wetlands without a continuous surface connection
- Non-navigable tributaries of traditionally navigable waters, as long as those tributaries are "relatively permanent" with either a year-round flow or a three-month or longer seasonal flow
- A wetland adjacent to a non-navigable tributary of a traditionally navigable water, as long as such a wetland has a "continuous surface connection" to that non-navigable tributary

Because of *Rapanos*, the EPA has also issued guidance on the analysis a field officer must conduct before a significant nexus is found. A significant nexus analysis must assess

(1) the flow characteristics and functions of the tributary and (2) the functions performed by any wetlands that are adjacent to the tributary. In both cases, the analysis is to "determine if they significantly affect the chemical and biological integrity of downstream traditional navigable waters."

The EPA has stated that it can consider certain hydrologic factors when making a significant nexus determination, including:

- Volume, duration, and frequency of flow
- Proximity to traditionally navigable water
- Size of the watershed
- Average annual rainfall in the area
- Average annual winter snow pack in the area

A nexus is significant if it is simply "more than speculative or insubstantial." The initial determination of whether a significant nexus exists is made by the relevant EPA or USACE district, and the districts are given broad latitude to implement the CWA according to these EPA guidelines.⁷

Civil and Criminal Enforcement Mechanisms

The CWA provides a stringent regulatory regime governing your client's discharge of waste into waters of the United States. The EPA is serious about enforcement of the CWA's provisions, and has administrative, civil, criminal, and injunctive enforcement powers at its disposal to effect compliance. In the oil and gas industry especially, the EPA's enforcement of the CWA's provisions can be extensive.

Civil and Administrative Penalties Available to the EPA

The CWA authorizes the EPA to assess a penalty on any person. The definition of person, in this case, covers individuals, corporations, associations, and responsible corporate officers—certainly almost anyone associated with your clients. The following are the civil and administrative penalties that can be assessed against your clients under the CWA:

- Administrative penalties of \$16,000 per violation or per day, up to a total penalty of \$187,500
- Civil penalties of \$37,500 per day per violation for failing to comply with NPDES or Section 404 permitting programs
- Civil penalties for oil or other hydrocarbon spills of \$37,500 per day, or \$2,100 per barrel of oil discharged
- Civil penalties of \$150,000 minimum, or \$5,300 per barrel for oil or other hydrocarbon spills that resulted from gross negligence or willful misconduct

Criminal Penalties

A variety of criminal penalties can be levied against your clients for violation of the CWA. They include:

- **Violations due to negligence.** Courts have interpreted the negligence standard as only requiring simple or ordinary negligence, rather than gross negligence. Such violations may incur fines of \$25,000 per day for a first conviction and \$50,000 per day for subsequent convictions. A conviction is considered a misdemeanor. A responsible corporate officer faces jail time of up to one year, in addition to the above fines.
- **Violations with knowledge.** These violations incur fines of \$50,000 per day for a first conviction, and \$100,000 per day for subsequent convictions. A conviction is considered a felony and carries a prison sentence of up to three years, in addition to the above fines.
- **Federal Alternative Fines Act.** This act can be utilized by government to impose additional fines in an amount up to double the loss or gain associated with the violation in question.
- **Disqualification, suspension, and debarment.** Upon criminal conviction, a person or entity is automatically disqualified from conducting work for the federal government until they are reinstated (which may never occur). Suspension and disbarment are discretionary actions that can be applied to an entire company, including its affiliates. Suspension is usually in effect for up to 12 months, whereas debarment is often in effect for at least three years and can be extended further. Unlike automatic disqualification, suspension and debarment are only effective if the debarring official issues a negative opinion, notice is given to the violator, and the violator is allowed to protest the decision.

The EPA's enforcement abilities are vast, and fines can reach billions of dollars. For example, BP was assessed a \$5.5 billion civil penalty under the CWA for its part in the 2010 Deepwater Horizon oil spill. This was a negotiated total that was substantially lower than its penalty could have been.⁸

Safe Drinking Water Act

The SDWA is the premier piece of legislation allowing the EPA—most commonly through state action—to regulate drinking water within the United States. The SDWA seeks to promote healthy drinking water that is free of harmful amounts of pollutants.

Related Content

For more information about the National Environmental Policy Act, see

> 5 ENERGY LAW AND TRANSACTIONS § 120.02

RESEARCH PATH: Energy & Utilities > Energy & Environmental Regulation > Environmental Regulations > Secondary Materials

For a discussion of the use of water in oil and gas operations, see

> WATER USE IN OIL AND GAS OPERATIONS

RESEARCH PATH: Energy & Utilities > Energy & Environmental Regulation > Environmental Regulations > Practice Notes

For an overview on the reclamation of waste material, see

> RECLAIMING TANK BOTTOMS, HYDROCARBON WASTE, AND OTHER WASTE MATERIALS

RESEARCH PATH: Energy & Utilities > Energy & Environmental Regulation > Environmental Regulations > Practice Notes

6. See *Rapanos v. United States*, 547 U.S. 715 (2006). 7. For more information regarding the significant nexus test and how it is applied, see a presentation by Jason Miller of the Division of Habitat and Resource Conservation at the U.S. Fish and Wildlife Service at https://www.fws.gov/habitatconservation/rapanos_carabell/Post_Rapanos_pres_web.pdf.

8. For more information on enforcement mechanisms under the CWA, and the interplay between the oil and gas industry and the CWA, see <https://www.wilmerhale.com/en/insights/publications/minimizing-risk-under-the-clean-water-act>.



The SDWA created the Underground Injection Control (UIC) program, which regulates wastewater disposal and flowback into old/inactive wells or wastewater disposal wells resulting from the drilling process. Essentially, the SDWA regulates all oil and gas wells that involve injection of liquids or gas, either to enhance recovery or to dispose of drilling waste, brine, or water recovered during production. The SDWA does not, however, regulate wells that are solely used for the production of oil and gas without the aid of any ongoing fluid injection to increase pressure.

It is estimated that there are more than 144,000 wells that qualify for regulation under the UIC, with approximately 2 billion gallons of fluid (mostly saltwater brine) being injected each day. The brine is saltier than ocean water, and a relatively small volume of brine from oil and gas production can contaminate a large fresh water aquifer or surface reservoir if the fluid leaks out of the formation it is injected into. Thus, the UIC places great importance on the injection of contaminated liquid into proper sealed formations or salt domes so that it does not escape through faults or fissures into a subterranean aquifer or otherwise find its way to the surface to contaminate drinking water.

Enhanced Recovery Wells

Approximately 80% of UIC-qualifying wells are enhanced recovery wells, where the operator consistently injects brine, water, steam, or other fluid into a producing formation to increase pressure and force oil or gas out of a nearby well with greater efficiency. This process is used in older formations where production without an enhanced recovery process would likely not be commercially viable. Although the method has raised environmental concerns related to drinking water, the

process can extend the life of a hydrocarbon field by years, or even decades, and is a method of ensuring that all reserves are gathered from a field before its wells are plugged and abandoned.

The enhanced recovery process is markedly different than hydraulic fracturing or fracking, where fluid and proppants are pumped into a well as it is being completed to create and hold open cracks or fractures in the producing formation so that petroleum and natural gas can more easily flow into the wellbore. Instead, enhanced recovery wells make formerly productive wells commercially productive again. Neither the SDWA nor the UIC provides for regulation of the vast majority of fracking operations (see The SDWA and the Regulation of Fracking below).

Saltwater Disposal Wells

Saltwater disposal wells—which inject saltwater brine that occurs naturally as part of the production process—account for the remaining 20% of wells regulated by the UIC. These wells dispose of the saltwater brine byproduct—estimated at 10 barrels for every barrel of oil produced—at a significantly lower cost than would be required to dispose of the saltwater brine in another manner.

Saltwater disposal wells are often formerly productive oil or natural gas wellbores that have stopped producing paying quantities of petroleum or natural gas but are located within productive oil and gas fields and close to other producing wells. Injection into saltwater disposal wells is limited to the amount of fluid that can be absorbed into the formerly productive geologic formation, and each well is rated separately to account for this volume limitation.

If your client is an operator, it has a fiscal inducement to keep the saltwater brine wastewater that is to be injected into disposal wells as free from hydrocarbons and other contaminants as possible, since any hydrocarbons skimmed off the wastewater is their property—rather than the property of the E&P operator that originally produced those hydrocarbons. Thus, many owners of saltwater disposal wells store the wastewater in a series of settling tanks before pumping it into the disposal wells. Any significant solids, as well as oil and other hydrocarbon products, can be skimmed out of the wastewater in the tanks and resold. This helps ensure that the formation receiving the saltwater brine remains as free from serious contamination as possible and helps keep the disposal wellbore clean and able to operate with less maintenance. And, the process may provide a profit motive for your client as well.

Ideal Underground Strata for the Injection of Saltwater and Other Waste

The SDWA attempts to prevent the underground contamination of drinking water by regulating saltwater injection wells. Requiring an operator to inject brine into a formation that is similar to that from which the brine was extracted makes drinking water contamination from the injection activity less likely. In contrast, if sufficient geologic testing is not conducted and brine is injected into an improper formation with faults that allow for leakage, aquifer, and/or groundwater, contamination is quite possible. Thus, the SDWA requires an operator to only inject fluid into strata that is porous and permeable enough to accept the volume of fluid proposed, and which can contain and confine the fluid solely within that formation. If strata is faulted or fractured, it is not acceptable for injection well purposes. Similarly, if strata contains hydrocarbons—even if they are not capable of being produced or are largely depleted—the strata may not qualify, because injection of wastewater may be challenging for the operator. The ideal formation for your client to use for injection purposes is either a porous dry layer of strata, or a porous layer of strata already partially or fully populated with saltwater.

To identify the ideal layer of strata in an area, your client should hire geologists to evaluate core samples and/or records of core samples from when the well was drilled. If quality geologic information is not available, information gathered from geophysical mapping may be used to determine the proper formation for disposal purposes. Depending on where the ideal strata is located, the wellbore may have to be manipulated to ensure that wastewater only travels into the appropriate formation and does not seep into formations above or below.

The Permitting Process for Disposal and Injection Wells in Texas

Operators of saltwater disposal and enhanced recovery injection wells must obtain a permit. Because the SDWA is largely administered by the states, this is generally done through the state body that regulates the oil and gas industry within that state.

Before a permit is issued, the state authority evaluates the application to determine if:

- Groundwater and surface freshwater can be adequately protected from pollution
- The use or installation of the well is in the public interest
- The installation of the well will endanger or injure any oil, gas, or other mineral formation
- The applicant has made a satisfactory showing of financial responsibility

In evaluating whether the creation and operation of a well is in the public interest, state regulators evaluate “whether the well will provide needed additional disposal capacity and an economical and safe means of disposing of oil and gas waste, thereby increasing the ultimate recovery of oil and gas and preventing waste.” However, in the seminal case of *Railroad Commission of Texas v. Texas Citizens for Safe and Clean Water*, the Texas Supreme Court ruled that the state regulatory agency could not take into account other factors such as increased truck traffic, perceived public safety threats, general community impact, or diminution of local property values when determining whether to grant a saltwater disposal well permit.⁹ Additionally, notice must be given to the surface owners, other nearby operators, and local government officials, and the operator must review records for all abandoned wells within a defined radius to ensure there can be no fluid migration into an improperly abandoned well (thereby creating liability for your client as operator of the injection well).

After these standards are met, the state regulatory authority will review the construction plan for the well to ensure that its design will protect drinking water. Depending on various state regulations, a saltwater disposal well must generally be constructed with three or four layers of cement and steel casing before it is approved for operation. While different states vary their regulations slightly, best practices for both steel casing and cementing activities have been promulgated by the American Petroleum Institute, and these practices are generally followed by all hydrocarbon-producing states.¹⁰

⁹ R.R. Comm'n of Tex. v. Tex. Citizens for Safe and Clean Water, 336 S.W.3d 619 (Tex. 2011). ¹⁰ See U.S. Department of Energy, *State Oil and Natural Gas Regulations Designed to Protect Water Resources*, at p. 18, at http://www.gwpc.org/sites/default/files/state_oil_and_gas_regulations_designed_to_protect_water_resources_0.pdf.

The permitting process is not a static process. To maintain an active permit to operate a saltwater disposal well, your operator client must prove that it regularly monitors the well and must keep significant records of disposal volumes and pressures.

The Casing and Cementing Process

The first casing—the surface casing—is the widest and is placed downhole, with a concrete encasement that seals the area from the surface to the bottom of the deepest discovered groundwater aquifer. In most cases, a production casing, with full concrete cladding, comes next that travels from the surface to the very bottom of the wellbore. In some cases, an intermediate casing, with concrete encasement, is placed between the surface casing and the production casing, creating an extra layer of protection for the groundwater aquifers the well passes through. Finally, a steel tubing string and packer are lowered into the wellbore. The tubing string has perforations at its bottom, which will allow the saltwater injected to drain into the appropriate formation. The packer is a mechanically or hydraulically set seal that is placed between the tubing string and the production casing—generally at least 50–100 feet above the highest perforation level of the tubing string. The space between the production casing and the tubing string is often filled with hydraulic fluid before the packer is fully set, thus helping counteract downhole pressure on the bottom of the packer, alerting the operator if the packer begins to leak and saltwater begins to travel up-hole between the production casing and the tubing string. This hydraulic fluid also helps prevent corrosion from attacking the production casing and the outside of the tubing string.

Permitting

If both statutory and mechanical requirements are met, the state regulatory authority will issue your operator client a permit for the construction of its saltwater disposal well. However, before the well becomes operational, your client must demonstrate that the well can meet a very strenuous pressure test designed to model the harshest conditions the well might encounter during its lifecycle. If the well passes this pressure test, it may become operational. If it does not, it must either be capped and abandoned, or must be recompleted or repaired. The EPA only requires that this strenuous pressure test be repeated every five years. However, each state differs in this requirement, with some requiring your operator clients to conduct and report an annual pressure test on all saltwater disposal wells within the state. Monthly logs must also be

kept of average operating pressure, to ensure the packer or the casing is not slowly failing between pressure tests.

To determine operating volume for the well, many state regulatory agencies will require your clients to perform a step test, in which different and increasing volumes of fluid are pumped down the wellbore while bottom pressure is monitored. Maximum volume/pressure for the well is generally set just below the point at which the fluid injected during the test causes the formation to begin to break down. Pursuant to EPA guidelines, this test must be witnessed personally by state regulatory personnel.

The permitting process is not a static process. To maintain an active permit to operate a saltwater disposal well, your operator client must prove that it regularly monitors the well and must keep significant records of disposal volumes and pressures. Your client must also monitor and report regularly on water quality in the area surrounding the well.

Transportation of Saltwater to an Injection Well Site

The vast majority of saltwater brine is stored temporarily at a well site until a sufficient quantity has been produced to be transported via truck to a disposal well. The cost to transport saltwater brine is generally calculated on a per-barrel-per-hour basis, with the national average being \$1.00 per barrel per hour of transportation time. However, disposal wells are few and far between in oil and gas producing states like Pennsylvania and New York but are plentiful in Texas. The cost of disposing of a barrel of brine on the East Coast may be between \$4.00 and \$6.00, whereas the cost may be as little as \$0.50 per barrel in the Barnett Shale in North Texas. Thus, the location of a saltwater disposal well may greatly affect the economics of a productive formation your clients own a part of.

Due to the cost of transportation and, in some cases, the rarity of saltwater disposal wells, some E&P companies have begun to develop systems to filter and reuse produced brine as semi-fresh water for other drilling activities. These efforts are in their infancy and are still relatively uneconomical except in areas where few injection wells are present, but they do present your clients with interesting alternatives to the traditional saltwater injection option.

The SDWA and the Regulation of Fracking

Since 2005, the SDWA has specifically excluded regulating the underground injection of most hydraulic fracturing operations. Some believe this is because all such fluid eventually works its way out of a well (and therefore does not remain permanently in the ground). Others see it as a specific exclusion brought about by aggressive industry lobbying. Regardless of the cause, most fracking operations remain outside the jurisdiction of the SDWA.

The exception to this rule is that the SDWA does still regulate the injection of diesel fuel as a tool used in fracking, because diesel often contains impurities such as benzene, toluene, ethylbenzene, and zylene that are highly mobile in groundwater and pose a risk to human health. Although diesel is not often used in fracking operations, it can be used as a large or small component of fracking fluid to adjust viscosity and fluidity, or as a solvent for the fractures themselves. If your client wishes to conduct a fracking operation using diesel fuel as a primary base (or carrier) fluid, as a component of its fracking fluid, or as a solvent, then it must seek an additional permit to do so from the EPA. The EPA is given significant discretion when deciding whether to grant such a permit.¹¹

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is a significant piece of environmental regulation meant to clean up sites contaminated with toxic chemicals. CERCLA creates strict joint and several liability for all present and past property owners and designates Superfund sites.

CERCLA contains two exclusions affecting the oil and gas industry: the E&P waste exclusion and the petroleum exclusion. The petroleum exclusion is relatively clear cut. If petroleum is spilled, CERCLA liability will not attach, because that spill is regulated under other federal laws, including the SDWA and the CWA.

The E&P waste exclusion is a different matter. Many believe this exclusion was originally meant to fully exclude all drilling-related E&P waste from CERCLA regulation. But early case law on the subject failed to fully recognize that exclusion, if it was indeed the intent.

The EPA has utilized CERCLA to investigate drilling and injection well sites, alleging that E&P waste (such as drilling mud, tailings, injectable fluids, and brine) may be the cause of ground or water contamination. However, this is rare, as



the EPA has to find elevated amounts of hazardous substances (e.g., toluene, benzene, zylene, and other hazardous chemical compounds that are associated with either commercial-grade solvents or the use of substantial amounts of diesel fuel during the fracking process) in E&P waste before liability may attach.

CERCLA has recently been used by the EPA to investigate fracking methods in Pennsylvania, Wyoming, and other states. However, no enforcement actions have been taken as a result of these preliminary investigations. In reality, other environmental regulations such as the CWA and the SDWA are more easily tailored to oil and gas regulation and are therefore more often used by the EPA as enforcement tools for fracking operations and within the larger E&P industry.

The Clean Air Act

The Clean Air Act (CAA) regulates major source and minor source entities that emit any of 188 separate air pollutants and is the preeminent federal law regulating toxic pollutants released into the air.

Major source polluters are individual entities that either have the potential to emit at least 10 tons of a single toxic air pollutant per year or have the potential to emit 25 tons of two or more air pollutants during any given year. Major source polluters (such as power plants) are individually regulated and must install emission control devices that drastically reduce the amount of pollutants released into the atmosphere. The standard for these control devices is deemed to be the maximum achievable control technology; each major source facility must install the state-of-the-art air-scrubbing technology to minimize air pollution. Essentially, whatever is the best technology available in the marketplace.

¹¹ For more information regarding the permitting process necessary before diesel can be used in a fracking operation, see the EPA's whitepaper at <https://www.epa.gov/uog>.

Minor source polluters emit less than the major source limits on a per-installation basis. These polluters are not required to install emission control devices unless an aggregated number of minor source polluters would, together, produce enough toxic air pollution to qualify as an aggregated major source polluter.

As with many of the federal regulations discussed above, enforcement of the CAA is left first to the states, with oversight from the EPA.

Aggregation and the Historic Oil and Gas Industry

Historically, EPA regulations exempted individual oil and gas wells from being aggregated together for purposes of the CAA, unless they were located within a municipal area with one million inhabitants or more. Thus, the vast majority of the upstream oil and gas industry was historically exempt from CAA standards. This is because individual oil and gas wells do not produce sufficient air pollutants to qualify as a major pollution source under the CAA and were too diverse in location and scope to be aggregated together into a single major source polluter. However, the situation began to change in the mid-2000s.

The Trend toward Aggregation

By the mid-2000s, the nation's oil and gas industry was expanding rapidly. With the discovery of multiple shale gas fields throughout the country, many near or directly under populated residential areas, there was heightened concern about environmental standards for the oil and gas industry under the CAA. There was particular focus on natural gas wells, which are a major source of methane emissions.

In 2007, the Acting Assistant Administrator of the EPA published a memo that stated interconnected oil and gas facilities could be aggregated for the purpose of determining whether they were major source polluters under the CAA if they:

- Have a unity of ownership/control
- Are within the same industrial grouping
- Were located within a quarter-mile of each other

This rule has been adopted by most state agencies tasked with enforcing the CAA. The EPA concluded that aggregation would not be appropriate in a great majority of cases, but the proximity standard allowed for further regulation of the oil and gas industry under the CAA.¹²

The Modern Push to Aggregate

In 2009, the Assistant Administrator for the EPA withdrew the above-mentioned memo and published her own guidelines for determining whether aggregation was appropriate within the oil and gas industry. The McCarthy Memo, as it later became known, took the EPA back to a “case-by-case analysis” for aggregation determinations, with the hope that aggregation could be found for oil and gas facilities that were significantly farther apart than the quarter mile provided for under the previous memo.

Not all state environmental regulatory agencies automatically followed the EPA's lead on this front. As late as 2012, many state agencies were still operating under the quarter-mile guidance. The EPA eventually forcibly reminded each state that this was no longer the standard.

Litigation Shows Limits on Aggregation

In *MacClarence v. EPA*, the U.S. Court of Appeals for the Ninth Circuit upheld a ruling against a private citizen who attempted to force the EPA to aggregate all of BP's wellheads located in Prudhoe Bay, Alaska, even though that field was spread over more than 300 square miles.¹³ In its denial of the application for aggregation, it was stated that the request “stretches the concept of proximity” that otherwise defines aggregation determinations within the CAA concept.

In *Summit Petroleum Corp. v. EPA*, the EPA decided to take an aggressive stance on aggregation that was ultimately struck down by the U.S. Court of Appeals for the Sixth Circuit.¹⁴ In *Summit*, which began with a 2005 application for an aggregation determination, the EPA initially relied on its early guidance on aggregation to determine that the natural gas wells and a processing facility—which were roughly eight miles from end to end and covered an area of 43 square miles—could not be aggregated. However, a final determination was not made by the EPA until two weeks before the McCarthy Memo was issued. At that point, the final EPA determination stated that the *Summit* facility should be aggregated under the CAA. *Summit* appealed, and the Sixth Circuit ultimately disagreed with the EPA. The court remanded the case back to the EPA to make a revised determination based on “the proper, plain-meaning application of the requirement that *Summit*'s activities be aggregated only if they are located on physically contiguous or adjacent properties.”

In response to *Summit*, the EPA instructed its various field regions (outside of the Sixth Circuit) to continue to apply the pre-*Summit* concept of “adjacent” when making an



aggregation determination under the CAA, leaving the field offices located within the Sixth Circuit alone to abide by *Summit*. The U.S. Court of Appeals for the D.C. Circuit patently rejected this approach in *Nat'l Env'tl. Dev. Ass'ns Clean Air Project v. EPA*,¹⁵ citing the need for a uniform national standard for CAA aggregation policy.

New Rules to Change Aggregation Standard

While the CAA standards currently in existence still adhere to the McCarthy Memo's aggregation guidelines, the EPA has proposed new rules on aggregation, to clarify regulation of the oil and gas industry under the CAA. These rules propose to bring back the quarter-mile proximity standard, but also propose new stringent standards on methane gas and volatile organic compound emissions. Thus, the oil and gas industry may receive some relief in the proximity standard, but the level of environmental discharge that constitutes an entity being deemed a major polluter may decrease significantly if aggregation is found.

Ultimately, the trend over the past several years has been toward greater regulation of the oil and gas industry under the CAA. Whether this trend continues may be closely tied to the political process. For now, your oil and gas company clients should make plans with more stringent environmental regulations under the CAA in mind.

Oil Pollution Act

The Oil Pollution Act (OPA) was passed by Congress largely in response to the Exxon Valdez oil spill in Prince William Sound, Alaska. It imposes liability on responsible parties for discharge of oil into or upon the navigable waters or shorelines of the United States, or within the “exclusive economic zone” of the United States (which extends up to 200 miles offshore). The OPA requires an E&P company to implement a plan to prevent oil spills, as well as a detailed containment and cleanup plan should an oil spill occur. It also contains certain education requirements and limits the ability of certain vessels that have spilled large amounts of oil from traveling to Prince William Sound, Alaska.

The OPA creates a strict liability standard for any party responsible for oil spills, meaning that the spill alone—rather than any showing of negligence or gross negligence—is enough to incur liability. It also channels liability to certain entities involved in the E&P process. For instance, in offshore E&P activities, the holder of the drilling permit is legally responsible under the OPA for any oil spill, even if another party contributed to causing that spill. A party that is strictly liable under the OPA may bring a contribution action against a party that is not strictly liable under the OPA, but any such litigation is irrelevant for the purposes of government enforcement of the OPA.

¹² For more on this memo, see Article: Aggregation Consternation: Clean Air Act Source Determination Issues in the Oil & Gas Patch, 29 Pace Envtl. L. Rev. 645 (Spring 2012). ¹³ *MacClarence v. EPA*, 596 F.3d 1123 (9th Cir. 2010). ¹⁴ *Summit Petroleum Corp. v. EPA*, 690 F.3d 733 (6th Cir. 2012).

¹⁵ *Nat'l Env'tl. Dev. Ass'ns Clean Air Project v. EPA*, 752 F.3d 999 (D.C. Cir. 2014).



The OPA has a two-tiered liability structure. It first assesses unlimited costs to remove the discharged oil or to “prevent, minimize, or mitigate oil pollution from such an incident.” This is known as the removal cost contingent of the OPA’s regulation scheme. Second, the OPA imposes a monetary penalty for damages resulting from the discharge. For offshore oil spills, this penalty is capped at \$134 million per incident. However, the damage cap is lifted if there is a showing of gross negligence or willful misconduct, or if the spill was proximately caused by the responsible party or its employee, agent, or contractor violating a federal safety, construction, or operating regulation.

The OPA also specifically disclaims preemption of state environmental laws. So, even if an E&P producer is liable under the OPA for removal costs and damages, it may also be separately sued in state court for additional damages that would normally be preempted. Federal criminal statutes are also unaffected by the OPA and its damage caps. For major oil spills, criminal restitution can often be significantly higher than the OPA damage caps, even though these penalty amounts will not be shared with private individuals and entities damaged by the spill.

The OPA instituted a permanent \$1 billion trust (from a tax on oil sales) that is available to fund the cleanup of oil spills on navigable waterways throughout the United States if the responsible party is unwilling or unable to pay to do so.

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 allows the EPA to regulate chemicals that pose an “unreasonable risk to health or to the environment,” as well as to regulate new entrants into the chemical marketplace. The TSCA has not traditionally been used to regulate the oil and gas industry. However, the EPA issued an Advance Notice of Proposed Rulemaking on May 9, 2014, that sought public comment on:

The types of chemical information that could be reported and disclosed under [the] TSCA, and the approaches to obtain this information on chemicals and mixtures used in hydraulic fracturing activities, including non-regulatory approaches.

This is clearly an evolving area, but the EPA’s efforts indicate a desire to begin the collection of information about the composition and potential health and environmental effects of various chemicals used in the fracking process. This in turn indicates that the EPA may increase regulation in the future. It is reasonable to believe that regulation of the oil and gas industry under the TSCA may be coming in the not-so-distant future.

Endangered Species Act

The Endangered Species Act (ESA) of 1973 provides for the federal conservation of threatened or endangered species throughout their range and also works to protect the habitat and ecosystem on which they depend. The ESA prohibits any person from taking any endangered or threatened species. The term take includes harassing, harming, pursuing, shooting,

wounding, killing, capturing, or collecting any listed species and also includes attempting to engage in any such conduct with a listed species.

The ESA has a significant impact on oil and gas exploration, as a drill site may require the clearing and/or the complete disruption of upwards of five acres of previously undisturbed land, and seismic operations may disturb species on land and underwater. Before any action that may disturb an endangered or threatened species occurs, an operator must determine whether the property is populated by a threatened or endangered species and ensure that it does not inadvertently take an endangered or listed species without government approval.

Section 10 of the ESA requires any private party undertaking an activity that may result in a take of a protected species to obtain an incidental take permit prior to beginning the threatening activity. As part of the permitting process, the applicant will be required to develop a habitat conservation plan that details the steps it will take to offset any harmful effects its proposed activity will have on the protected species. These conservation plans may include such proposals as:

- The development of well sites outside of a species’ traditional habitat
- The use of remote monitoring to limit human and vehicular traffic at the production site
- The requirement that a pipeline be run to a well to limit vehicular transportation
- Work to reclaim land surrounding plugged and abandoned wells
- Collaboration with and funding of research organizations in an effort to more fully understand and delineate the endangered species’ habitat

Even if your operator client is issued an incidental take permit, it must be very careful. When exploring in an area populated by endangered or threatened species, it is wise for you to advise that your client build such information into the standard lease form, so that it is protected if it cannot drill due to ESA concerns.

As the government is in the process of potentially adding another 251 species to the 1,300+ endangered species list, the ESA will likely become more restrictive to the oil and gas industry. With potential civil and criminal penalties for even small infractions, your E&P operator clients must stay ahead of the curve in this area of regulatory concern.

The Migratory Bird Treaty Act

The federal government does not merely seek civil penalties against your E&P operator clients for violation of

environmental laws. It also seeks to assess criminal penalties against them, should their activities cause an environmental impact. Some of the more popular criminal statutes that have been utilized against the oil and gas industry are the Migratory Bird Treaty Act (MBTA) and the National Marine Sanctuaries Act (NMSA).

The MBTA was originally passed in 1918 to protect birds migrating between the United States and Canada. The MBTA makes it unlawful to hunt, kill, capture, or sell birds protected by the act. This act has famously been used to restrict the sale of bald eagle feathers, eggs, and nests. Following the Exxon Valdez disaster, the U.S. government chose to pursue criminal penalties against Exxon under the MBTA, arguing that the spill caused the death of a significant number of protected migratory birds.

The government has traditionally stated that any take of a protected migratory bird would result in strict liability and a significant volume of case law has previously agreed. However, certain recent cases have held the opposite. For example, a federal court in North Dakota refused to impose liability on an E&P operator whose open (and lawful) oil reserve pits caused the incidental death of migratory birds. What was once a clearly defined body of law now may be in flux. However, the safest approach for your E&P operator clients is to operate with the same caution as was required in the past. No company or client wants to be the newest test case under the MBTA.

The National Marine Sanctuaries Act

The NMSA authorizes the Secretary of Commerce to designate certain areas of the marine environment as national marine sanctuaries if they have special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archaeological, educational, or aesthetic qualities. Once an area is designated as a sanctuary, the NMSA provides for unlimited liability for any damages occurring to such a designated area, plus a civil penalty of up to \$130,000 per day per violation. In the case of an offshore oil spill, these damages could be significant for your clients, as large areas (such as the entirety of the Florida Keys) are designated as national marine sanctuaries. Largely because there are no damage caps available, the government has threatened or pursued criminal liability against E&P operators under the NMSA in several notable instances, including after the Deepwater Horizon oil spill. This is an area you should certainly monitor on behalf of your clients. ■

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Solar Electricity Sales Regulation

This article explains the regulatory framework under the Public Utility Regulatory Policies Act of 1978 (PURPA)¹ surrounding the sale of electricity by solar utility providers.



THERE IS TWOFOLD REGULATION OF SOLAR ELECTRICITY sales in the United States. At the wholesale level (the sale of electricity by generators to utilities), sales are regulated by the Federal Energy Regulatory Commission (FERC). And, at the retail level (the sale of electricity by utilities to the general public), sales are regulated by state public utility commissions. Especially now that large solar utilities may cross the wholesale and retail divide, it is important for you to understand both tiers of solar electricity sales regulation. This will help you properly represent your solar utility provider clients, and

also help you determine whether they qualify for exemptions from regulation.²

PURPA Protects Renewable Energy Generators at the Federal Level

Prior to enactment of PURPA, solar power producers—which often tended to be smaller than traditional utility providers—were at a disadvantage. Utilities were not required to purchase the solar generator’s electric output at market rates. Some even charged solar producers high fees for backup power. And, they were often subject to onerous state and federal regulation, as if they were large utility providers. PURPA changed this by requiring traditional utility providers to provide fair treatment to your solar generation clients.

PURPA’s Protections from Large Utilities

In an effort to promote the efforts of your smaller solar generation clients, the FERC enacted regulations that protected them from predation by larger traditional utilities. Unless they receive a special exemption from the FERC, these regulations require traditional utilities to do the following for the benefit of your solar generation clients:

- Purchase power from your solar generator clients at avoided-cost (or marginal) rates, which are generally set by a state’s utility commission
- Sell power to your solar generator clients at nondiscriminatory rates set by state regulatory authorities
- Interconnect your clients’ solar generation facilities with the wider electric grid to allow the purchase and sale of power

PURPA’s Benefits for Your Qualifying Clients

Additionally, the FERC regulations provide additional benefits for your qualifying solar generation clients:

- Renewable energy facilities under 30 megawatts generating capacity, or your clients’ qualifying solar facilities under 80 megawatts generating capacity, are exempt from the Public Utility Holding Company Act of 1935.
- Your clients’ qualifying solar facilities with 20 megawatts or less of generating capacity are exempt from rate regulation under Sections 205 and 206 of the Federal Power Act.
- Your clients’ qualifying solar facilities with 30 megawatts or less of generating capacity are exempt from all provisions of the Public Utilities Holding Company Act of 2005.
- Your clients’ qualifying solar facilities are exempt from state laws and regulation respecting electric utility rates, financing, and organization.

While these regulations offer your clients substantial benefit, your clients’ facilities must be deemed qualifying under PURPA. Because of the relatively small size of most solar power projects, most of your clients’ solar generation facilities will likely qualify for the PURPA exemptions. However, to qualify, your clients must meet the following criteria:

- Generate electricity primarily through the use of solar power, or some other renewable energy resource
- Have power production capacity that does not exceed 80 megawatts, when combined with all other generation facilities located at the same site
- Meet the FERC’s fuel use standards (for alternate electricity generation during periods without sunlight) set out in the regulations implementing PURPA³

Fuel Use Standards to Qualify for PURPA Protection

The FERC allows your solar production client to use oil, natural gas, or coal to power up to 25% of its facility’s total energy needs. However, the use of these fuels is limited to the minimum amount required to do the following tasks:

- Initiate ignition of the steam plant
- Startup of turbines or boilers
- Testing of equipment
- Flame stabilization and control
- Alleviate or prevent unanticipated outages or emergencies
- Other minor permissible uses, such as improving the efficiency of the facility’s fixed assets

Related Content

For information on financing solar energy facilities, see

> [SOLAR ENERGY FINANCING](#)

RESEARCH PATH: [Energy & Utilities > Green Tech & Renewable Energy > Solar Energy > Practice Notes](#)

For an overview of solar energy technologies and their regulation, see

> [SOLAR ENERGY TECHNOLOGIES AND REGULATION OF PROJECTS](#)

RESEARCH PATH: [Energy & Utilities > Green Tech & Renewable Energy > Solar Energy > Practice Notes](#)

For a discussion of developing solar energy facilities, see

> [SOLAR ENERGY PROJECT DEVELOPMENT](#)

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While the FERC has interpreted these rules broadly to encompass other “minor permissible uses” not found in the regulation itself, some courts have pushed back against this broader interpretation of the FERC rules. You should familiarize yourself with this dichotomy before your client comes up with its plan for traditional energy use, as some usage may be disqualifying even if below the 25% threshold.⁴

If your client’s traditional fuel usage will exceed the 25% threshold, it is possible to receive a limited waiver from the FERC—especially in cases of a system-wide emergency. While the specific mechanics of obtaining a waiver are beyond the scope of this article, it is worth noting you need to help your client carefully monitor this usage so it doesn’t lose its PURPA exemptions.⁵

Size Limitations for Your Client

As mentioned above, PURPA limits the megawatt output that your client can produce before it loses its PURPA exemptions. However, the FERC interprets this size limitation in a somewhat restrictive way by considering multiple generating facilities as a single unit in certain situations. Any generating capacity owned by your client, which uses the same energy source and is located at the same site, is counted as one

¹ 16 U.S.C.S. § 824. ² For additional information on PURPA, see U.S. Department of Energy, Public Utility Regulatory Policies Act of 1978 (PURPA). See also U.S. Energy Information Administration, “PURPA-qualifying capacity increases, but it’s still a small portion of added renewables.”

³ For more on the standards the FERC considers when determining whether your client’s facility is qualifying under PURPA, see the Commission’s frequently asked questions page. ⁴ For more on this interpretive clash, compare *S. Cal. Edison Co. v. FERC*, 195 F.3d 17 (D.C. Cir. 1999) with *LUZ Solar Partners, Ltd.*, 30 F.E.R.C. P61,122 (1985). ⁵ For more information on obtaining a waiver, see Steven Ferrey, *The New Rules: A Guide to Electric Market Regulation*, at p. 90 (2000). For more on fuel use criteria, see Robert N. Danziger, Patrick W. Caples, and James R. Huning, *The Rules Implementing Sections 201 and 210 of the Public Utility Regulatory Policies Act of 1978: A Regulatory History*, available at <https://www.osti.gov/servlets/purl/6713387>. For the text of these regulations, see 18 C.F.R. § 292.101.

qualifying facility for purposes of PURPA's size limitations. Facilities are deemed to be located at the same site if they are located within one mile of each other.

Additionally, the FERC looks to the net, rather than nominal, generating capacity of your client's facility to determine whether it meets PURPA's size limitations. In the *Occidental Geothermal, Inc.* case, the FERC set out the generating capacity standard as follows:

[A] facility's power production capacity is not necessarily determined by the nominal rating of even a key component of the facility The [FERC] will consider the "power production capacity" of a facility to be the maximum net output of the facility which can be safely and reliably achieved under the most favorable operating conditions likely to occur over a period of several years. The net output of the facility is its send-out after subtraction of the power used to operate auxiliary equipment in the facility necessary for power generation . . . and for other essential electricity uses in the facility from the gross generator output.⁶

So, your client is entitled to subtract out whatever energy is used to operate the facility when determining whether it meets PURPA's size requirements.



Notice Requirements

Once you've helped your client establish that it is planning to build a qualifying facility, your client likely must still file a notice of self-certification with the FERC through a completed Form 556. Unless your client's facility generates less than one megawatt of electricity, Form 556 must be filed before your client can begin generation activities.

Currently, the FERC regulations require your client's self-certification to contain the following information:

- The name and address of your client (as applicant) and the location of your client's facility
- A brief description of your client's facility, including a statement indicating whether the facility is a small power production facility or a cogeneration facility
- The primary energy source used or to be used at your client's facility
- The power production capacity of the facility
- The percentage of ownership by any electric utility or by any public utility holding company, or by any entity owned by either
- Information about your client's facility's location as it relates to any other small power production facility using the same energy source if the other facility is within one mile of your client's facility
- Information identifying the type and amount of your client's planned usage of coal, oil, or natural gas to produce electricity⁷

As an alternative to self-certification, the FERC allows your client to submit a request for formal certification from the commission. While time consuming and more costly, you may want to advise your client to request formal certification if there is any doubt whether your client's facility is deemed a PURPA-qualifying facility. If it is not, and a dispute arises, utility providers do not have to allow interconnection with your client's proposed facility until the dispute is settled.

The request for formal certification requires the same information as the notice of self-certification but does require a filing fee. It must also include a request that the formal certification be published in the Federal Register.

As part of the review process, the FERC staff may request additional information. If your client's facility is similar to other facilities previously approved by the FERC, the staff may approve the request without further consideration. If

your client's facility raises an issue of first impression, its application will have to be formally presented to the entire commission for review—a lengthy process.

If your client files a formal request for certification, the FERC has 90 days to act on it—either by denying it, setting it for hearing, or tolling the deadline. If the FERC fails to act within the 90-day window, the application is deemed approved. However, if your client's application is denied, or you or your client disagree with some portion of the order granting the application, you can request a rehearing from the FERC.

State Regulatory Developments

While there is significant regulation at the federal level for you and your clients to be concerned with, there are also state regulatory concerns you and your client may need to worry about. While covering all state regulatory issues is beyond the scope of this article, the most important are likely these:

- Feed-in tariff programs
- Net metering programs to facilitate solar facility build-out

Feed-in Tariff Programs

As an alternative, or sometimes as a supplement, to renewable portfolio standards programs—where a state mandates that a certain minimum amount of electricity must be generated from renewable sources—some states have adopted feed-in tariff (FIT) programs, where there is a guarantee of premium payments to your renewable energy development clients for all electricity their facility produces. Under these programs, utilities are able to enter into long-term contracts with your renewable energy clients (often 20 years), where your clients are guaranteed the ability to sell electricity often at higher prices. These programs often pass cost along to the ultimate consumer, incentivizing the creation of renewable energy facilities while spreading the cost as widely as possible. These programs may be instituted at the state or local level, so it is important for you to determine eligibility on behalf of your clients before financing proposals are finalized. The ability to achieve a guaranteed return may be critical for your client obtaining the financing necessary to build its solar generating facility.⁸

Net Metering Programs

As part of the Energy Policy Act of 2005, Congress required state regulatory authorities to consider adopting standards where facilities that generated renewable electricity for their own use could sell any excess energy back into the electric grid. Usually, the sale of this self-generated renewable electricity is either credited against your client's future utility bills or is actually

paid for in cash by the utility in question. As of 2014, 43 states and the District of Columbia had adopted these types of policies.

With so many different policies in place, it is not possible to discuss each state's nuanced plan in detail. However, it is important for you to know that many features are common to all net metering programs, including the following:

- **Facility size limits.** To be eligible for net metering programs, most states limit the size of your client's on-site generating facility to between 100 kilowatts to 80 megawatts—a fairly broad range.
- **Limits on enrollment.** Many states limit the amount of total generating capacity that is eligible for the program, potentially making it impossible for your client to sell all excess electricity into the grid. Sometimes this is done on a utility-by-utility basis, so it is important for you to help your client determine whether there is any space left under state caps.
- **Rollover restrictions.** Some states allow your client to roll over excess electricity generated in one month to another month where excess electricity was not generated. Some states do not allow this. It is important for you to understand whether this limitation will apply to your client. If it does, excess electricity generated each month will simply be wasted, making the renewable generation facilities less efficient.
- **Third-party restrictions.** Generally, your client will install its solar generation equipment in one of two ways. It will either lease or purchase the equipment for its own use, or it will have a solar generation equipment company supply discounted or free equipment, in return for your client's purchase of the electricity generated. While your client is always eligible to participate in net metering programs in the first instance, it may not be eligible to participate in all jurisdictions, where the generation equipment is owned by a third party. If your client plans to install equipment with excess generating capacity, and wants to utilize third-party equipment, you need to carefully research whether it will be eligible to participate in net metering. If not, the entire system may be economically infeasible.

Adapted from content in 3 Energy Law and Transactions 71.01-71.04. ■



RESEARCH PATH: [Energy & Utilities > Green Tech & Renewable Energy > Solar Energy > Practice Notes](#)

6. *Occidental Geothermal, Inc.*, 17 F.E.R.C. ¶ 61,231 at 61,445 (1986). 7. Instructions for how to complete the FERC Form 556, along with a link to the form itself, can be found at <https://www.ferc.gov/industries/electric/gen-info/qual-fac/obtain.asp>.

8. For additional information about feed-in programs, see *Feed-in tariff: A policy tool encouraging deployment of renewable electricity technologies*, a policy whitepaper by the U.S. Energy Information Administration.



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Clean and Renewable Energy Industry Guide for Capital Markets

This guide covers all related information that a securities practitioner needs when working with a clean and renewable energy company. It provides an overview of the industry and covers applicable securities laws and regulations, securities offering process, disclosure and corporate governance obligations, stock exchange requirements, commercial and regulatory trends, and practical tips for counsel.

Overview of the Clean and Renewable Energy Industry

The clean and renewable energy industry focuses on alternative energy solutions to traditional fossil fuels, which currently dominate the supply of energy across the world. Unlike traditional fossil fuels, which are potentially finite in availability and can generate relatively high levels of pollution, clean and renewable energy sources generally do not face comparable availability concerns and can supply energy with a smaller footprint on the environment.

The major clean and renewable energy sources include biomass, solar, and wind power, among others.

Biomass

Biomass energy is organic material from which energy can be obtained and includes sources ranging from wood to waste-to-energy to landfill gas. This energy can be obtained both by burning the biomass directly (e.g., wood and manure) as well as converting the biomass to a different form of usable energy, such as ethanol, which can be added to gasoline to power automobiles. Major producers of biomass and biofuels include Green Plains Inc., an ethanol manufacturer that went public in 2007; BioAmber Inc., which sells a biologically produced, chemically identical replacement for petroleum-derived succinic acid, and who completed their initial public offering (IPO) in 2013; and FutureFuel Corp., a company that produces and sells biodiesel, a renewable energy fuel, and went public in London in 2007 before its later U.S. listing. Renewable Energy Group, Inc. is another major player, operating a network of 10 biomass-based diesel plants.

Solar

Solar energy is generated by converting sunlight into electricity. This occurs by a variety of mechanisms, including the use of photovoltaic panels or cells to convert sunlight into electricity and thermal collectors to gather heat from the sun. Solar energy is currently the most active segment of the clean and renewable energy industry, with companies such as Yingli Solar and Trina Solar focusing on the manufacture of solar panels. In addition, companies including SunPower, First Solar, SunRun, and SolarCity not only manufacture solar panels and systems, but also offer installation packages on a variety of levels spanning from utilities to residential. These companies may allow consumers to purchase a solar system outright, to lease a solar system, or to have a solar system installed and be paid for the power produced.

Wind

Wind energy is typically generated by building wind turbines to harness and generate electricity. The energy harnessed by the turbine can be used either locally or as part of a larger wind farm that is connected directly to provide power to an electrical grid. More so than most sources of clean and renewable energy, the production of wind turbines requires a substantial initial capital outlay, thus leaning more heavily on the project finance markets than traditional equity or debt capital markets for capital raises. There are relatively few companies that are publicly listed on a major U.S. exchange that are purely focused on wind energy. General Electric is a major player in this space, and a handful of others trade over-the-counter, including Nordex, Siemens, and Vestas. Other participants include wind farm developers, many of which take the form of yieldcos (i.e., companies that seek to generate cash flows from a group of assets and then pay it back to investors as dividends), including Hannon Armstrong Sustainable Infrastructure, Pattern Energy Group, and Brookfield Renewable Energy Partners.

Investments

Clean and renewable energy companies focus on developing and commercializing one or more alternative forms of clean and/or renewable energy. As noted above, however, companies specializing in different types of clean or renewable energy may approach capital-raising differently. Companies developing biomass or, more recently, solar energy have tapped the U.S. equity capital markets to raise money. On the other hand, because of the substantial capital required at the outset, companies hoping to fund the construction of wind turbines or other types of production facilities have gravitated to the project finance space as a way to raise the necessary funds. In addition, earlier stage and/or private clean energy companies have had access to a growing pool of venture capital and seed funding. According to CB Insights, a data analyzing service, global investments in the clean energy financing market were \$3.2 billion, \$3.7 billion, and \$3.8 billion for 2013, 2014, and 2015, respectively. Although a strong fourth quarter helped to stabilize investments for the year, funding in 2016 constituted a drop-off to this growth trend. Roughly half of this financing has come at the seed/angel stage, together with Series A through D financing rounds (discussed below under Startup Financing). Major financing rounds from 2016 have included \$1 billion in Series A to WM Motors (Chinese electric vehicle), \$120 million

Before a sale can be consummated, an issuer's registration statement must be declared effective by the SEC, typically following a review of the registration statement by the SEC staff, unless the issuer is a well-known seasoned issuer who qualifies to file an automatically effective registration statement.

in Series A to Chehejia (Chinese electric vehicle), \$200 million to United Wind (U.S. wind), and \$169 million to SITAC RE (Indian wind).

Applicable Securities Laws and Regulations

Securities offerings are governed by a comprehensive set of laws and regulations that are applicable across industries. At the federal level, the two fundamental statutes that provide the framework for securities regulation are the Securities Act of 1933, as amended (Securities Act), and the Securities Exchange Act of 1934, as amended (Exchange Act). Both statutes establish a disclosure-based regime designed to provide investors with enough information to make an informed decision about whether to purchase or sell a company's securities.¹

Securities Act

The Securities Act was designed to regulate the offer and sale of securities by (1) requiring companies to provide material financial and other information concerning the securities being offered for sale and (2) imposing liability for fraud, deceit, or other misrepresentation in the sale of securities. In order to achieve these two objectives, the Securities Act requires that every offer and sale of securities in the United States be registered with the Securities and Exchange Commission (SEC), unless an exemption from registration is available.

Registered Offerings

In general, offers may not be made until an issuer files a registration statement with the SEC. The registration statement, which includes a prospectus that must be delivered to investors, discloses certain qualitative and quantitative information about the issuer (including its business and financial operations) and the securities being offered for sale. Before a sale can be consummated, an issuer's registration statement must be declared effective by the SEC, typically following a review of the registration statement by the SEC staff, unless the issuer is a well-known seasoned issuer who qualifies to file an automatically effective registration statement.²

The Securities Act imposes statutory liability for any material omissions or misstatements in the registration statement and

prospectus, as well as any other documents furnished to a purchaser of securities under the Securities Act.³

Private Placements

However, not all securities offerings must be registered with the SEC. There are various safe harbors and exemptions from registration that include, among others:

- Private offerings to a limited number of persons or institutions
- Offerings of limited size
- Offerings involving securities of municipal, state, and federal governments

The private placement exemption is widely relied on by issuers, with a number of safe harbors that help to facilitate capital-raising. Among the most commonly utilized, Regulation D of the Securities Act contains safe harbors that allow issuers to raise up to \$5 million (Rule 504),⁴ or an unlimited amount subject to limitations on the type of permitted investor (Rule 506).⁵ Rule 144A⁶ permits resales of certain qualified securities to sophisticated, large institutional investors and is frequently used for debt financing and offerings of other securities that are not listed on a national securities exchange. Regulation S⁷ is a safe harbor utilized for offerings made exclusively outside of the United States.⁸

Exchange Act

The Exchange Act was created to govern securities transactions on the secondary market and requires that companies with a security listed on a U.S. stock exchange, meeting certain asset amount and shareholder number requirements, or making public offerings of securities in the United States, register such securities and file certain periodic and other reports with the SEC. These reports contain information similar to the information required in a registration statement under the Securities Act.⁹ In addition, the Exchange Act provides for the direct regulation of markets on which securities are sold (i.e., stock exchanges) and the participants in those markets.

A foreign clean and renewable energy company may qualify as a foreign private issuer (FPI) as defined in Rule 405¹⁰ under the Securities Act and Rule 3b-4¹¹ under the Exchange Act. A foreign company will qualify as an FPI if 50% or less of its outstanding voting securities are held by U.S. residents and none of the following three circumstances applies: (1) the majority of its executive officers or directors are U.S. citizens or residents, (2) more than 50% of its assets are located in the United States, or (3) its business is administered principally in the United States. FPIs are entitled to reduced regulatory and reporting requirements under both the Securities Act and the Exchange Act.¹²

Additional Statutes and Regulations

- The Trust Indenture Act of 1939 prohibits public offerings of debt securities unless there is an indenture that complies with the requirements of such act and provides for the appointment of a trustee to protect the rights of security-holders.
- The Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley) mandates a number of reforms to enhance financial disclosures and combat corporate and accounting fraud.
- The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 was designed to improve accountability and transparency in the financial system.
- The Jumpstart Our Business Startups Act of 2012 aimed to help businesses raise funds in the public capital markets by easing registration requirements for emerging growth companies (generally, companies with less than \$1.07 billion during its most recent fiscal year).
 - Benefits afforded to emerging growth companies in the public offering process include, among others:
 - The ability to confidentially submit registration statements to the SEC for review
 - Two years of required audited financial statements, rather than three
 - Significantly reduced executive compensation disclosure
 - Relief from certain Sarbanes-Oxley requirements
 - The ability to test the waters with investors before an offering¹³

The SEC and the Financial Industry Regulatory Authority (FINRA) are the principal regulatory agencies that oversee the capital markets and capital formation activities in the United States. The national securities exchanges, such as the New York Stock Exchange (NYSE) and The Nasdaq Stock Market (Nasdaq), also perform

oversight functions and impose a number of regulations that can impact capital-raising.¹⁴

In addition to the federal securities laws, each state has its own set of securities laws that are commonly referred to as blue sky laws. Securities offerings are subject to blue sky laws, although the National Securities Markets Improvement Act of 1996 has largely preempted many state securities laws.¹⁵

Securities Offering Process

As with companies in most other industries, clean and renewable energy companies must conduct both debt and equity offerings in the United States in accordance with the Securities Act, which requires that the offer or sale of a security be registered with the SEC or fall under certain enumerated exemptions.

Registered Offerings

A public offering requires filing a registration statement with the SEC covering the securities to be sold. Before a registration statement has been filed, the issuer and underwriter cannot make offers to or solicit offers from prospective buyers, and before the registration statement has been declared effective by the SEC, the issuer and underwriter cannot sell securities.

Organizational Meeting

Typically, the process for registered public offerings begins by selecting an underwriter, holding an organizational meeting with the primary working group (the issuer, issuer's counsel, the underwriters, underwriters' counsel, and the issuer's auditors), and beginning to jointly prepare the registration statement and prospectus. The working group may include additional third parties, including regulatory and industry-specific consultants. The organizational meeting will typically include an expected timeline for the offering, including targeted dates for filing the registration statement and preliminary prospectus and for pricing the offering.¹⁶

Transaction Documents

The primary transaction document is the underwriting agreement, which sets forth the terms and conditions under which the underwriters purchase the securities from the issuer and offer them to investors. The underwriting agreement contains representations and warranties by the issuer, which assist with the underwriters' due diligence (as discussed below) and help allocate risk between the parties. It also includes issuer covenants, closing conditions, and indemnification and contribution obligations. In registered debt offerings, there is also an indenture, which governs the terms of the debt securities, and issuers must select a trustee to act as the

1. For further information, see U.S. Securities Laws. 2. For further information on registered offerings as well as well-known seasoned issuers, see Follow-On Offerings Resource Kit, WKSIs and Seasoned Issuers, and Equity Offerings Comparison Charts. 3. For further information, see Liability under the Federal Securities Laws for Securities Offerings. 4. 17 C.F.R. § 230.504. 5. 17 C.F.R. § 230.506. 6. 17 C.F.R. § 230.144A. 7. 17 C.F.R. §§ 230.901–905. 8. For more information, see Private Placements Resource Kit, and Private Placement Considerations. 9. For further information, see Periodic and Current Reporting Resource Kit.

10. 17 C.F.R. § 230.405. 11. 17 C.F.R. § 240.3b-4. 12. For more information on FPIs, see Rule 12g3-2(b) Foreign Private Issuer Reporting Exemptions, and Foreign Private Issuers and Rule 12g3-2(b) Filing Exemption Checklist. 13. For further information on some of these topics, see Market Trends 2016/17: The Jobs Act and Emerging Growth Company Guide for Capital Markets. 14. For more information, see Document Submission to the SEC, Understanding the SEC Review Process, and NYSE vs. Nasdaq Disclosure Requirements. 15. For further information, see Blue Sky Requirements for Private Offerings, Securities and Transaction Exemptions under Blue Sky Laws, Blue Sky Memorandum: When and How to Use, and Blue Sky Law Compliance in Securities Offerings. 16. For further information, see Parties to a Securities Offering Checklist and IPO Key Agreements.

representative of the debt holders and as registrar, transfer agent, and depositary under the indenture.

In an underwritten offering, the underwriters are compensated through an underwriting spread, which is the difference between the amount the underwriters pay for the securities and the price at which they sell the securities to the public. The standard underwriting spread across all industries for an IPO of equity securities is 7%, while the median underwriting spread for a follow-on equity offering is less standardized, often ranging between 4% and 6%. Underwriting spreads for issuances of debt securities vary depending on the type of debt security offered and the credit rating of the issuer but are typically lower than the underwriting spread for equity offerings. Underwritten equity offerings also usually include an underwriters' option to purchase additional securities (typically 15% of the principal amount) at the initial purchase price, which is known as a greenshoe or an overallotment option. This option allows the underwriters to stabilize the price of the securities in the open market.¹⁷

Due Diligence

The Securities Act imposes liability on both the issuer and the underwriter for, among other things, material misstatements or omissions in the registration statement or prospectus. For this reason, the parties rigorously investigate the issuer's business and financial operations in due diligence and carefully and comprehensively review the registration statement and prospectus. The due diligence investigation provides support for the disclosure

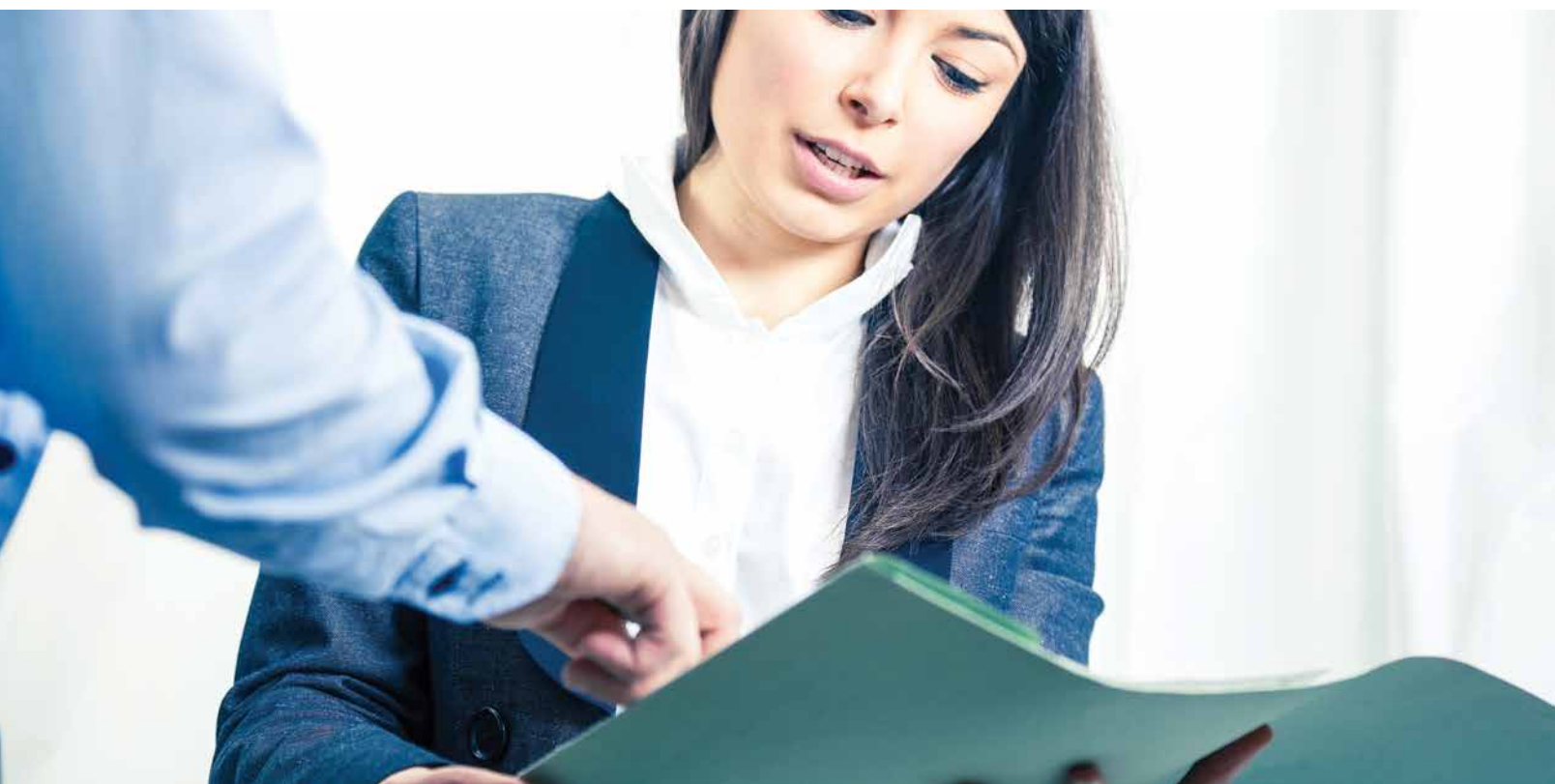
in the registration statement and prospectus and protects the underwriters from liability if they can establish that a reasonable basis existed for their belief that the registration statement was accurate and complete.

As part of the due diligence process, the underwriters and their counsel will request documentary due diligence materials and backup for disclosure in the registration statement. A typical offering may involve intellectual property or regulatory lawyers as part of the due diligence process. Usually in an IPO, and often in other offerings as well, due diligence may also include conversations with the issuer's suppliers, customers, and collaborators. Counsel for the issuer and underwriters will negotiate the underwriting agreement as well as certain other transaction documents, such as lock-up agreements, legal opinions, and a comfort letter from the auditor. In addition to legal opinions from its primary corporate counsel, an issuer may be required to provide legal opinions from counsel handling regulatory, intellectual property, tax, litigation, or other matters for the issuer. The parties will also prepare a suite of standard closing documents and certificates.¹⁸

Offering Documents

In a registered offering, the primary offering documents are the registration statement and the prospectus. The registration statement includes the prospectus and is filed with the SEC. The prospectus is delivered to purchasers and contains extensive disclosure about the issuer's business and financial operations, as well as information about the offering. The registration statement


¹⁷ For forms of underwriting agreements in various contexts, see Underwriting Agreement (Primary Offering) and Underwriting Agreement (Combined Primary and Secondary Offering). ¹⁸ For further information, see Due Diligence Interviews, Accounting Due Diligence, and Due Diligence: Managing the Process for an IPO.



Related Content


For an overview of the topic of due diligence in the context of a securities offering, see

> [DUE DILIGENCE FOR SECURITIES OFFERINGS RESOURCE KIT](#)

 **RESEARCH PATH:** [Capital Markets & Corporate Governance](#) > [Post-IPO Equity Offerings](#) > [Follow-on Offerings](#) > [Practice Notes](#)

For a description of how to prepare, file, and review a company's registration statement for an initial public offering (IPO), see

> [REGISTRATION STATEMENT AND PRELIMINARY PROSPECTUS PREPARATIONS FOR AN IPO](#)

 **RESEARCH PATH:** [Capital Markets & Corporate Governance](#) > [IPOs](#) > [Drafting the Registration Statement](#) > [Practice Notes](#)

For guidance on managing a private offering of securities, see

> [PRIVATE OFFERING MANAGEMENT](#)

 **RESEARCH PATH:** [Capital Markets & Corporate Governance](#) > [Private Offerings](#) > [Private Placements](#) > [Practice Notes](#)

is filed with the SEC, and the SEC will typically review and provide comments that must be addressed before the registration statement is declared effective (unless the registration statement is automatically effective, as discussed earlier). Depending on the details of the transaction, filings with FINRA, Nasdaq, or NYSE, and state or blue sky filings may also be necessary. Once the registration statement is effective, the issuer and the underwriters settle on a price for the transaction, sign the underwriting agreement, and begin sales to investors. Typically, the closing date is T+3, or the date that is three business days from the date of the underwriting agreement. From start to finish, in many cases, an IPO of equity may take from four to six months to complete. It can take much longer depending on market conditions, SEC review, and other factors. A follow-on offering of equity or an offering of debt can take anywhere from several days to several weeks to complete, absent complications.¹⁹

¹⁹ For further information, see IPO Time and Responsibility Schedule, and SEC Comment Letter Responses. ²⁰ For further information and forms of documents, see Private Placement Memorandum Drafting, Private Placement Memorandum Form, Private Placement Memorandum (Hedge Fund Limited Partnership Interests) (DE), and Common Stock Subscription Agreement (Private Offering, Start-Up Company). For information on due diligence in a private offering, see Due Diligence for a Private Offering.

Advice for Issuers

An IPO, including due diligence, is a very intensive process. Internal and external counsel should prepare in advance as much as possible. Having due diligence and other documentation organized in advance will streamline the process and allow for faster drafting of relevant portions of the registration statement. In addition, the structure of the board of directors is likely to change in an IPO. Having the post-IPO board in place will prevent last-minute disclosure revisions caused by changes in the board composition. If possible, determine the board composition and complete all background checks and director questionnaires early on. Identifying an issue with a director during the process will cause time to be lost while the team works on a solution. Prepare employee stock option and stock purchase plans and descriptions as early as possible. Collect all of the executive compensation information so that it can be readily described. The IPO should be about the company telling its story. The work to develop and refine that story should not be adversely impacted by counsel and other advisors being distracted with implementing corporate governance changes.

Private Placements

An alternative to a registered offering of securities is a private placement. The main advantages of a private placement are that it avoids the significant costs of the registration process and does not require the issuer to become a reporting company under the Exchange Act. To qualify for a private offering exemption (which is discussed in more detail above), however, issuers must comply with limitations on the manner and form of the offering, including restrictions on the types of investors who can participate in the offering or the amount of capital that can be raised.

In a private placement, no SEC registration statement filing is required, but usually the overall offering process is generally similar. Issuers often select a registered broker-dealer to serve as a placement agent and assist in finding potential investors. Rather than a prospectus, the working group prepares an offering memorandum or private placement memorandum that includes information about the issuer's business and financial operations, and rather than an underwriting agreement, the issuer enters into a purchase agreement (or several purchase agreements with individual investors) that set(s) forth the terms and conditions of the sale of securities. The issuer may need to make certain filings (for example, a Form D if relying on Regulation D), and may also have Form 8-K or other Exchange Act filing or disclosure obligations as a result of the financing.²⁰

Start-Up Financing

Earlier-stage clean and renewable energy companies often rely on private seed and venture capital financing to raise capital. Because companies in this industry usually require a long period of time before they reach profitability and thus rely on regular infusions of capital to grow their businesses, they often go through the typical start-up venture capital financing life cycle.

The first stage of start-up financing is referred to as seed financing and usually consists of financing from friends and family or specialist investors known as angel investors who invest in early stage companies. Seed financing typically includes the purchase by the investor of convertible preferred stock including rights such as a liquidation preference (priority in receiving proceeds from a sale or liquidation of the company) and protective provisions (veto rights over certain corporate actions). Seed financing can also take the form of convertible notes, which are debt securities that accrue interest and convert into equity securities upon certain specified events (e.g., a preferred stock financing, IPO, or a sale of the company). When a conversion event occurs, convertible noteholders typically receive equity at a lower price than that paid by new equity investors. Seed financing can also consist of common stock or simple agreements for future equity (a contractual agreement that has many of the same features of a convertible note). Because of the early stage nature of seed financings, they do not typically involve an intermediary such as a placement agent. A company may undergo multiple rounds of seed financing.

The next stage of financing is often described as Series A financing and involves raising capital from professional institutional investors, including venture capital funds. Significant venture capital investors in the clean and renewable energy space include Kleiner Perkins Caufield & Byers, Khosla Ventures, and Braemer Energy Partners. Series A financings typically consist of the purchase of convertible preferred stock. In addition to a liquidation preference and protective provisions, Series A preferred stock can also include anti-dilution protection, rights to a board seat or a nonvoting board observer, demand, piggyback and shelf registration rights, rights to participate in future offerings, and drag-along rights. These rights are documented in a stock purchase agreement, a restated certificate of incorporation, and an investor's rights agreement. This stage of financing usually also does not involve a placement agent.²¹

Following Series A financing, companies usually pursue additional rounds of venture capital financing (Series B, Series C, etc.) with similar characteristics as Series A financing. Later rounds of financing are increasingly likely to include placement agents and take on more of the characteristics of a public offering (e.g., a more detailed disclosure document including sections on business and risk factors,

larger working groups, and broader marketing efforts). Later rounds of financing may also include warrants to purchase additional common shares as a sweetener in anticipation of an IPO or a sale of the company.

Advice for Issuers

It is important to keep the private placements private and to have good records of the sales of unregistered securities. As part of any later-filed public registration statement, a company will have to describe all sales of unregistered securities for the three years prior to the sale. A company with good records of its private placements can provide the information without concern. When issuers do not keep clear records, it can be difficult to deal with any questions from the SEC regarding the sales of securities prior to the IPO. Restricting the number of nonaccredited investors (keeping it at zero where possible), obtaining proper certifications from investors, and tracking the investors and potential investors to whom information was distributed (e.g., by numbering offering materials packets and keeping a log of which investors get materials) will make retracing the company's actions significantly easier.²²

Disclosure Obligations

Depending on whether a clean and/or renewable energy company is a domestic U.S. issuer or an FPI, the SEC requires the issuer to disclose different qualitative and quantitative information in its registration statement or prospectus. These disclosure requirements, which are generally standard and do not require different categories of information for different industries, can include the following:

- A description of the issuer's business, which often includes a detailed description of the industry in which the issuer operates
- A description of the securities offered
- A series of risk factors that inform investors of the potential business, financial, regulatory, and offering risks for investing in a given issuer's securities
- Information relating to the issuer's management and board of directors, as well as general information on corporate governance and executive compensation
- The issuer's intended use of the proceeds from the offering
- The issuer's management discussion and analysis (MD&A), a discussion of the issuer's financial and operational results in narrative form
- Audited financial statements and related information for the issuer prepared in accordance with U.S. Generally Accepted Accounting Principles (U.S. GAAP) (or reconciled to it) or International Financial Reporting Standards

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²¹ For a form of registration rights agreement, see Registration Rights Agreement. ²² For further information on issues that may arise with start-ups, see Rule 506 General Solicitation and Startup Capital-Raising, and Indemnification of Start-Up Directors and Officers.

Risk Factors

The federal securities laws and regulations currently require that an issuer disclose the most significant factors that make an investment in its securities speculative or risky. Such disclosure is meant to be specific to the issuer and should not cover risks that could apply to any issuer or any offering. Typically, clean and renewable energy companies focus this risk-related discussion on three broad categories: (1) the use of relatively untested technology that may be difficult to commercialize, (2) dependence on tax and related government incentives, and (3) potential product liability claims. Each type of clean and renewable energy company should also discuss in detail risks related to its regulatory oversight. For example, an alternative fuel company may wish to describe any issues it has encountered related to compliance with regulations that govern the use and disposal of hazardous materials.

A good starting point for drafting risk factors is the disclosure of comparable companies in the space. Public companies will have reviewed their businesses and identified risks. Such disclosures will need to be evaluated for applicability to the current business (by the legal, finance, or other appropriate business teams) and then adapted to the specifics of the company. To the extent there are additional business lines and other differences between the precedent and the company, other risk factors should be added. The process of reviewing another company's risk factors is also likely to identify other risks in the company's business that should be described.²³

Additional guidance on risk factors and examples of disclosures of risk factors from clean and renewable energy companies can be found in the complete practice note, *Clean and Renewable Energy Industry Guide for Capital Markets*.

MD&A and Business

Because of the capital and technology-based hurdles that clean tech companies' face, federal, state, and local regulatory authorities have robust programs for funding or incentivizing the research and operations of this industry. Many clean and renewable energy companies rely on government incentive programs to support their operations, whether in the form of direct payments, rebates, tax credits, or otherwise. Because of the importance that such programs play in the business and financial operations of many clean and renewable energy companies, counsel should carefully consider how to describe such programs in the business and MD&A sections.

For these issuers, it is market practice to weave this discussion throughout the entire disclosure document, noting it carefully in the risk factors, MD&A, and business section. This disclosure helps to provide investors with a full view of the potential risks and

rewards facing the clean and renewable energy industry. Although government incentives are available, the process for acquiring such incentives can be incredibly complex, fragile, and uncertain. As a younger industry than others (for example, financial services and life sciences), the clean and renewable energy industry must include disclosure in its documents that can be more involved than simply finding a handful of acceptable precedents. Instead, each company can face a completely different set of regulatory hurdles and benefits, necessitating additional and unique disclosure. Furthermore, these regulatory requirements may vary across jurisdictions.²⁴

Additional guidance on and examples of MD&A disclosures from clean and renewable energy companies can be found in the complete practice note, *Clean and Renewable Energy Industry Guide for Capital Markets*.

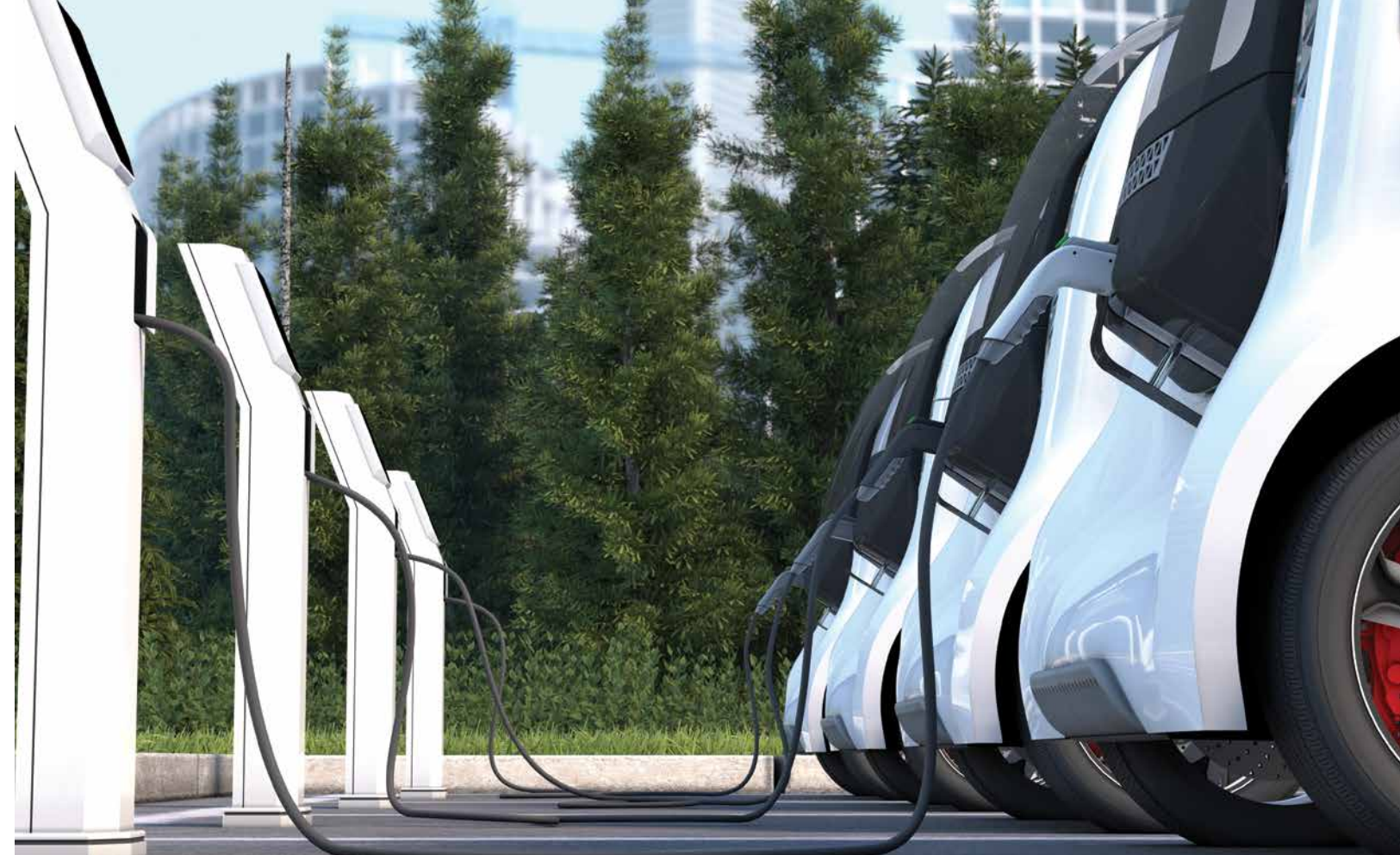
Accounting Treatment

Counsel should also consider the appropriate accounting treatment of government incentive programs in the issuer's financial statements as well. For instance, many clean and renewable energy companies receive tax credits and rebates, and there is no authoritative accounting treatment for such incentive programs under U.S. GAAP. Issuers have a variety of ways to characterize such programs in their financial statements, including treatment as revenue, as reduction to expense, or as income tax benefit. How such programs are characterized may play a significant role in an issuer's revenue recognition, especially with respect to timing and depreciation. The appropriate treatment of such programs will vary based on the purpose and nature of the incentive program, and counsel should coordinate with the issuer and its accountants to ensure that the bases for the issuer's chosen accounting treatment are accurately and fully described in MD&A.²⁵

Additional guidance on and examples of accounting disclosures from clean and renewable energy companies can be found in the complete practice note, *Clean and Renewable Energy Industry Guide for Capital Markets*.

Other Governmental Incentives

Other government incentive programs may not be reflected in an issuer's financial statements under U.S. GAAP because they have no direct effect on its financial statements. For instance, there are a number of governmental incentive programs that provide tax credits to consumers who utilize certain clean and renewable energy technologies, such as the use of alternative fuels in motor vehicles or expenditures on residential or commercial solar energy systems. However, because such tax credits are claimed by the end-user customer and not by the issuer, these programs are not recorded



in an issuer's financial statements. They may exist at all of the international, federal, state, and local levels and consist of dozens of distinct programs with distinct characteristics. Nonetheless, because such programs may remain material to an issuer's business and results of operations, counsel should ensure that they are described accurately and completely.²⁶

Finally, while issuers are often well aware of the necessity of disclosing the risks associated with changes to government incentive programs in the risk factors section, similar disclosure is also often necessary in the MD&A section. The SEC views MD&A as providing investors with "a look at the company through the eyes of management." Because of the importance of the rapidly changing and multifaceted regulatory environment surrounding government incentive programs to most clean and renewable energy companies, counsel should ensure that the MD&A section similarly reflects a full discussion of any government incentive risks and uncertainties. Item 303²⁷ of Regulation S-K requires issuers to disclose currently known trends, events, and uncertainties that are reasonably expected to have material effects, as well as known uncertainties that are less than trends but may nonetheless result in material consequences to an issuer's results of operations. As such, issuers should also include appropriate disclosure in MD&A reflecting potential regulatory

changes, changes in government incentive programs, and known shifts in consumer trends that may affect the business.

Additional guidance on and examples of governmental trends and incentive disclosures from clean and renewable energy companies can be found in the complete practice note, *Clean and Renewable Energy Industry Guide for Capital Markets*.

Other Prospectus Disclosure

In addition to specific risk factors on untested technology, difficulty commercializing, and the potential lack of adequate product liability insurance, separate disclosure is often necessary to help define for investors what the issuer's key operating data or metrics include, given the nature of clean and renewable energy issuers' operations. For example, in *Clean Energy Fuels Corp.*'s IPO prospectus, the company disclosed the number of fueling stations served and gasoline gallon equivalents delivered, while *SolarCity*, in its IPO, described the number of new buildings served and the megawatts booked and deployed in its relevant financial period as its key operating metrics. This disclosure is often prominently displayed in the summary or selected financial statements in the body of the disclosure document, and is where both *Clean Energy Fuels Corp.* and *SolarCity* chose to disclose it. Because these metrics are non-GAAP measures, however, clean and renewable energy companies

²³ For further information, see *Risk Factor Drafting for a Registration Statement and Market Trends 2016/17: Risk Factors*. ²⁴ For further information on MD&A, see *Management's Discussion and Analysis Section Drafting Checklist*. ²⁵ For further information on accounting treatment and related issues generally, see *Accounting and Auditing Professional Bodies and Standards*.

²⁶ For information on materiality, see *Materiality Determination Guidelines and Determining Materiality for Disclosure Checklist*. ²⁷ 17 C.F.R. § 229.303.

Requirements for the disclosure of non-GAAP information have existed for a number of years, but have only recently been the focus of the SEC.

choosing to discuss such key operating metrics should ensure that the disclosure and presentation of these figures complies with Item 10²⁸ of Regulation S-K, Regulation G²⁹, and SEC guidance relating to the use of non-GAAP financial measures. For example, in May 2016, the SEC released a series of Compliance and Disclosure Interpretations directed at the use of non-GAAP financial measures.

Requirements for the disclosure of non-GAAP information have existed for a number of years, but have only recently been the focus of the SEC. The focus of the SEC evolves over time and it is a good idea to stay abreast of the current focus. SEC comment letters are public and there are reports that compile the comment letters and identify trends. Such reports can be useful tools for both inside and outside counsel to stay abreast of developing trends and to identify potentially new areas of focus and for disclosure.³⁰

Additional Disclosure Issues

The Sustainability Accounting Standards Board (SASB) is a nonprofit organization that has developed sustainability accounting standards and seeks to integrate its standards into public company disclosures. SASB recently issued accounting standards for the renewable resources & alternative energy sector, which it defines as companies producing solar and wind power systems, fuel cells and batteries, biofuels, timber, and pulp and paper products. The standards include disclosure guidance and accounting standards on sustainability topics that may constitute material information. Sustainability issues are coming increasingly into focus across all industries, and in particular in the energy industry. Disclosure around sustainability topics may become particularly important for clean and renewable energy companies both as a matter of public expectation and as a means for differentiation from other types of energy companies.

Underwriting Agreements

Public and private securities offerings in the United States are generally made through a syndicate of underwriting banks, led by one or more lead underwriters. The underwriting agreement defines the relationship between the issuer and the underwriters by allocating the risks related to the offering and defining the

formal commitment of each of the banks. Underwritten offerings are usually on a firm commitment basis, which means that the underwriters take on the full risk of the offering by committing to purchase all of the securities that are being sold to the public. As an alternative, a best efforts underwriting allows an underwriter to only use best efforts to sell the securities rather than purchasing them all for their own account and then reselling, thus creating some risk for the issuer that it may not raise the full amount of desired proceeds.

Most investment banks that act as the lead underwriter have a preferred form of underwriting agreement. However, the terms of a bank's form of underwriting agreement may be negotiated to suit the specific facts and circumstances surrounding an offering. In connection with an offering by a clean and renewable energy company, the most commonly negotiated provisions of an underwriting agreement will likely be the representations and warranties of the company. The representations and warranties contain certain statements of fact and assurances by the company, and they confirm the accuracy of the information provided to investors (either in the registration statement or offering memorandum). In addition, they also focus the due diligence investigations of the underwriters. Many of the representations and warranties provided by a company will be standard across industries. However, certain representations and warranties included in the underwriting agreement should be tailored to reflect the situation of an issuer. For example, it is common for companies to negotiate representations and warranties related to the following: (1) possession and maintenance of material intellectual property rights necessary to conduct business; (2) compliance with applicable regulatory laws; (3) possession and maintenance of all necessary licenses, permits, and regulatory approvals to conduct business; and (4) compliance with environmental laws, which may include laws related to the disposal of hazardous materials.

Additional guidance on and examples of representations and warranties in underwriting agreements from clean and renewable energy companies can be found in the complete practice note, Clean and Renewable Energy Industry Guide for Capital Markets.

Continuous Disclosure and Corporate Governance

There are few continuous disclosure and corporate governance requirements that apply to clean and renewable energy companies aside from the standard corporate governance requirements promulgated by the SEC and securities exchanges. One topic that clean and renewable energy companies should carefully consider is the corporate governance principles applicable to project finance vehicles. Many clean and renewable energy companies use structured special purpose vehicles (SPVs) to obtain debt or equity financing for the development of individual projects. Companies

Related Content

For further information on securities law issues that a start-up company should consider when awarding equity as employee compensation, see

> START-UP EQUITY OFFERINGS TO EMPLOYEES: SECURITIES LAW ISSUES

RESEARCH PATH: *Capital Markets & Corporate Governance > Private Offerings > Private Placements > Practice Notes*

For guidelines that are helpful as a starting point for assessing materiality, see

> MATERIALITY: RELEVANT LAWS AND GUIDANCE

RESEARCH PATH: *Capital Markets & Corporate Governance > Financial Disclosure Issues for Public Companies > Determining Materiality > Practice Notes*

For information on the regulation of disclosure of financial performance measures that do not comply with the U.S. generally accepted accounting principles (GAAP), see

> SEC REGULATION OF NON-GAAP FINANCIAL MEASURES

RESEARCH PATH: *Capital Markets & Corporate Governance > Financial Disclosure Issues for Public Companies > Disclosing Non-GAAP Information > Practice Notes*

(referred to as sponsors in the context of creating an SPV) use SPVs to isolate the assets of the project finance vehicle and remove them from the bankruptcy risk of the sponsor. However, the use of SPVs by clean and renewable energy companies raises a number of corporate governance and disclosure issues above and beyond the off-balance sheet arrangement disclosure which requires a separate caption and discussion in MD&A. Notwithstanding the emphasis on the nonconsolidation and separateness of an SPV with its sponsor, including the transfer of the assets of the SPV off the sponsor's balance sheet, companies should ensure that their corporate governance policies and procedures provide adequate information regarding the operations of the SPV and its relationship with its sponsor to the audit committee and the board of directors.

For instance, many sponsor-SPV transactions will be considered to be related party transactions (due to, among other things,

commonality of management), and companies should consider requiring their audit committee to, in consultation with their legal counsel and auditors, review and approve all transactions between the sponsor and an SPV. Nasdaq rules only require a review, not an approval, by the audit committee of related party transactions, and NYSE rules merely recommend, but do not require, audit committee review and approval of related party transactions. However, because of the importance of and potential for fraud related to transactions between a sponsor and its project finance SPVs, companies should consider adopting more stringent corporate governance policies and procedures and including appropriate disclosure in SEC filings.³¹

Additional guidance on and examples of SVP disclosures from clean and renewable energy companies can be found in the complete practice note, Clean and Renewable Energy Industry Guide for Capital Markets.

In addition to the conflict of interest rules, internal and external counsel should be particularly familiar with the disclosure requirements for Form 8-K and the reporting and short swing profits rules of Section 16³² of the Exchange Act. Form 8-K is the SEC form on which a company must report certain specified transactions or circumstances, including, among others, material agreements and officer and director compensation and changes.³³ Understanding and tracking the Section 16 rules governing the ability of senior executives to trade in company stock is critically important to internal counsel charged with dealing with compensation issues or counsel that might be asked to advise on such a matter. The market closely tracks purchases and sales of company stock by insiders, and so it is important that reporting be done accurately and purchases and sales properly timed so as to avoid the executive having Section 16 violations.³⁴

Stock Exchange Requirements

The major stock exchanges, including NYSE and Nasdaq, do not generally distinguish among different industries of issuers. Nevertheless, NYSE and Nasdaq do exempt FPIs from most of the relevant corporate governance requirements, allowing them to opt instead to comply with certain home-jurisdiction requirements. This is important as China continues to expand the volume of clean and renewable energy companies hoping to seek financing in the United States. For example, Chinese companies such as Solar Power, Inc. and Canadian Solar have recently expressed aspirations to attempt IPOs in the United States. Furthermore, Tongwei Group Co., a Chinese company that is building what would be the world's biggest solar plant, also expressed strong interest in 2016 about conducting a U.S. IPO in the near future.³⁵

28. 17 C.F.R. § 229.10. 29. 17 C.F.R. § 244.100 et seq. 30. For further information, see Market Trends 2016/17: Public Company Reporting and Corporate Governance and SEC Regulation of Non-GAAP Financial Measures – Drafting Disclosure Compliant with Regulation G and Item 10(e).

31. For a discussion of sponsors and related party issues in an IPO context, see Sponsor-Backed IPOs: Governance and Liquidity Issues. 32. 15 U.S.C. § 78p. 33. For further information, see Form 8-K Reportable Transactions and Filing Deadlines Reference Chart, Form 8-K Checklist, and Memorandum to Management on 8-K Triggering Events and Related Disclosure Reporting Procedures. 34. For further information, see Section 16(a) Compliance, Liability Calculations under Section 16(b), Section 16 Forms Filing, and Short Sale Prohibition under Section 16(c). 35. For further information on NYSE and Nasdaq, see NYSE and Nasdaq Director Independence Standards Chart, 20% Rule and Other NYSE and Nasdaq Shareholder Approval Requirements, NYSE Initial Listing Requirements Table, NYSE Continued Listing Requirements Table, NYSE Notification Requirements Chart, NASDAQ Corporate Governance Listing Requirements Table, Nasdaq Initial Listing Requirements Table, Nasdaq Continued Listing Requirements Table, and Website Posting Requirements Chart (SEC, NYSE, and Nasdaq).



Other Key Laws and Regulations

Lawyers working with clean and renewable energy companies should be aware of the major federal laws and regulations that govern the industry, including rules and regulations promulgated by the U.S. Energy Department and the EPA. These laws and regulations provide for certain quality and safety standards, in addition to regulating land use, the disposal of hazardous waste and materials used in the production of certain alternative energy sources, and the creation of certain tax and other incentive programs to promote the development and commercialization of clean and renewable energy. Applicable regulations include:

- **The Biomass Research and Development Act of 2000.** Part of the Agricultural Risk Protection Act of 2000, this Act authorizes research to promote the conversion of biomass into bio-based industrial products. Under this Act, the Biomass Research and Development Board and Technical Advisory Committee was created to coordinate with other federal programs and to promote the use of bio-based industrial products.
- **The Farm Security and Rural Investment Act of 2002.** This Act was the first farm bill to contain an energy title and includes provisions that are designed to increase the federal government's purchase and use of bio-based products.

- **The American Jobs Creation Act of 2004.** This Act includes the Volumetric Ethanol Excise Tax and serves as an incentive to the petroleum industry to blend ethanol into gasoline. It also helps to make ethanol more affordable for consumers.
- **The Energy Policy Act of 2005.** The Energy Policy Act of 2005 was the first major energy legislation passed since the Energy Policy Act of 1992 and includes a variety of incentives and programs to encourage the development and production of alternative fuels. For example, this Act created the Renewable Fuels Standard, which requires that a certain amount of renewable fuels are blended with gasoline each year.
- **The Energy Independence and Security Act of 2007.** This Act was designed to improve vehicle fuel economy and reduce U.S. dependence on oil. In addition, it increases the Renewable Fuels Standard created by the Energy Policy Act of 2005.
- **The Food, Conservation, and Energy Act of 2008.** This Act created the Biomass Crop Assistance Program, which is intended to encourage the production of feedstocks for cellulosic ethanol by providing multi-year contracts to growers of dedicated energy crops, and creating incentives for the production, storage, and transportation of biomass and bioenergy facilities.

In addition to the foregoing list, internal and, more so, external counsel should track developing legislation and potential changes in regulations. Regulations affecting the clean energy sector are constantly evolving. New regulations are being considered and old regulations may be eliminated. In addition to tracking developments, companies should consider being involved in shaping the legislation through industry trade groups and other lobbying efforts. Tax credits, emissions standards, regulations regarding connecting to the power grid, and other matters are likely to be the subject of legislation. That provides industry the opportunity to influence the rules under which it will operate. There are plenty of organizations that allow smaller companies to participate in the process without spending significant amounts of precious capital.

Additional guidance and information on regulatory and industry trends for clean and renewable energy companies can be found in the complete practice note, *Clean and Renewable Energy Industry Guide for Capital Markets*.

Practice Tips

Clean and renewable energy companies face the typical host of issues in connection with seeking and obtaining equity and debt financing from public and private sources. The following identifies and discusses a number of items that counsel should consider.

Regulated Nature of Business

The regulated nature of clean and renewable energy businesses often adds a layer of complexity to the due diligence process. Consequently, the time allotted for due diligence should be extended to match the level of familiarity of the investor with the particular clean and renewable energy segment. For example, for a business that will be impacted by the production tax credits, investors will want to be familiar with the current and expected status of the PTC. For companies that monetize Renewable Identification Number Credits or Solar Renewable Energy Credits, the status and operation of those markets will be important in addition to the core business of the company. Companies raising capital should be ready to educate potential investors on the regulatory environment as part of the due diligence process. Knowledge of the existing regulations is important, but so is an understanding of where the regulatory environment is likely to go in the future. Investors are investing in the current regulatory environment but will still be invested in the future if it changes and are likely to be more comfortable investing in a company that understands the current as well as the expected future environment. As companies develop past the initial stages, their technology advances, and the business model crystalizes, there is typically more due diligence on those matters. The complexity of the technology and business model will affect the speed at which investors get comfortable supporting the company and any capital raising plan should plan for an appropriate length of time.

Companies should also understand whether there are likely to be any restrictions on foreign investment in their company. The Committee on Foreign Investment in the United States (CFIUS) oversees investments in U.S. assets that could affect national security. An investment from a non-U.S. party could be subject to review by CFIUS to the extent a company's technology connects to national, state, or local electricity grids, supplies the defense industry, or has government contracts, among other factors. While review itself is not fatal (the committee allows the vast majority of transactions to proceed), review will take time and so counsel should be alert to the issue and plan accordingly.


Internal Housekeeping

Companies typically raise money when they need it and so the timeline to close on any new funding matters. The typical process of business due diligence, technical due diligence, and legal confirmatory due diligence can be stalled at any point. Being prepared internally for the process can make the last part, the legal due diligence, go more smoothly. This entails collecting documents likely to be requested in a due diligence process, reviewing them, and organizing them. The internal team should be looking to identify the same items as would external counsel. Among other items, the process is designed to confirm the capitalization, confirm ownership of the intellectual property, identify any third-

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For all related information that a securities practitioner needs when working with a foreign private issuer, see

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For a form that may be used as an agreement among the underwriters in a securities offering, see

> [AGREEMENT AMONG UNDERWRITERS \(IPO\)](#)

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party consents, and identify any activities that might give rise to liability (e.g., indemnities to third parties, arrangements with distributors and agents operating internationally, exclusivity, rights of first negotiation, noncompetition, and most favored customer arrangements). Internal counsel should also be prepared to address the status of any existing, pending, or threatened litigation or investigations.


Shareholder Approval

For both public and private companies, counsel must identify whether shareholder approval is required and obtain such approval and any other required third-party approvals early in the process. For a private company financing, a new series of preferred stock financing will typically require approval by the shareholders as a group, but also approval of individual series of investors. It is important to understand the required vote and the parties that will control or influence the vote. Early identification of the existence of investors with veto or blocking rights, by virtue of the number and type of shares held or contractual rights, will allow the internal team to ensure such investor is in favor of the financing and its terms. This can be important when the economic terms are not favorable to the company's prior investors (either because it is a down round or the new investor demanded preferential rights). In addition to required votes, many investors in private companies will have the right to participate in any new round of financing. While that may seem like a good problem (if current investors want to participate), it can be difficult if a new investor is demanding a fixed percentage of the company following its investment and additional investment by others would dilute that interest.

In-house counsel must have a good understanding of the various regulatory regimes that impact the company's business. Outside counsel can be relied upon for advice, but as the first line of inquiry from the internal client, internal counsel should have a broad overview and understanding of the various regulatory schemes within which the company operates. In addition to understanding the regulatory environment, understanding (to the extent possible) how other companies in the same market segment comply with their regulatory requirements can also be helpful. Sharing practices can allow in-house compliance and legal counsel to benefit from an additional thought process on how to deal with an issue or circumstance faced by the industry as a whole.

Accessing the Public Markets

Companies accessing capital from the public markets should prepare well in advance of when the capital will actually be needed. Companies may want to time the market to take advantage of interest rates, interest in particular industry sectors, or regulatory developments. Each time securities are offered, there is a due diligence process and a disclosure process. Compared to an IPO, the process in subsequent offerings is typically faster, because it builds on what was previously done. However, for companies

that expect to be in the market and their counsel, it is a good idea to maintain updated data room files in an organized fashion where new documents are easily identifiable. It is also a good idea to have established internal sign-off procedures to ensure material information is communicated to the deal teams and that representations and warranties can be provided to underwriters, lenders, and other relevant parties. Companies that are consistently in the market should create an internal team, create the appropriate processes and procedures, and keep materials organized so that the legal process does not interfere with the fundraising. It is also common for a company to use the same counsel for itself on each financing and to also designate underwriters' counsel. Using the same external teams will also reduce the transaction time and expense as the teams build up the institutional knowledge and are not starting from the beginning for each transaction. 

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LexisNexis Employees Support Rule of Law in Company-Wide Analytics Hackathon

LexisNexis Legal & Professional employees recently participated in a rule of law hackathon as part of the company's annual Cares Month and Reed Elsevier's Global Cares Day.

SPONSORED BY THE LEXISNEXIS RULE OF LAW FOUNDATION, the company-wide effort involved the annotation of U.S. federal and state court dockets related to employment law and personal injury. The data from the annotations will be used to make data science models to extract rule of law analytics and automatically label new dockets. The Rule of Law Foundation will use the analytics to create real-time reporting on metrics to allow citizens, local governments and nations to better understand their legal systems and make data-driven decisions to advance the rule of law. Legal documents from other countries will be included in the future.


More than 400 employees located in 10 countries on five continents participated in the effort, which yielded more than 220,000 annotations to more than 30,000 dockets.

The employees, who were not required to have legal expertise to participate in the hackathon, used a dedicated tool to annotate

the documents. Employees had the option of using their RE Cares hours—two days of paid volunteer time provided by the company—for the hackathon.

LexisNexis established the Rule of Law Foundation in early 2019 “to help leading entities from legal, judicial, academic, NGO and other sectors advance one or more of four rule of law components: equal treatment under the law, transparency of law, access to legal remedy, and independent judiciaries.”

In addition to its work through the foundation, LexisNexis promotes the rule of law around the globe through its daily operations, products and services; the efforts of its employees; and collaboration with customers, governments, non-profits, and intergovernmental organizations. Additional information about the foundation is available at <https://www.lexisnexisrolfoundation.org/>



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