

US Project Finance: Key Developments and Trends from 2014 and the Outlook for 2015

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A discussion of key developments and trends in the US project finance market from 2014, including trends in sources of financing and loan terms and notable legislative and regulatory developments. It also discusses the outlook for 2015 for project finance generally and in the natural gas, renewable energy and infrastructure sectors, in particular.

This Article examines key financing, regulatory and legislative developments in the US project finance market from 2014, including the sources of capital that were used to finance greenfield projects, refinance existing project debt or finance project acquisitions. This Article also discusses the outlook for 2015 for project finance generally and the power, natural gas and infrastructure sectors in particular.

2014 OVERVIEW

US project finance activity was robust in 2014 with about \$60.2 billion in total loan volumes, up from about \$31.4 billion in 2013 and \$18.4 billion in 2012. This increased level of activity was facilitated by the significant liquidity in the credit markets. Financing was available from a wide range of sources, from traditional project finance lenders, such as European commercial banks and development banks to newer entrants in the market, including debt funds, investment banks and individual investors.

There were not enough projects in 2014 to absorb all the liquidity in the market, however. As a result:

- Many transactions were oversubscribed. This enabled some borrowers to secure more borrower-friendly terms from lower pricing to looser covenant packages.
- Some lenders were more willing to invest in projects and asset classes they have not historically considered. For example, some commercial banks extended financing to quasi-merchant projects and some Term B lenders were willing to take some construction risk.

There was activity in all sectors, but the power and oil and gas sectors were particularly active. Of the loan transactions that closed in 2014 about:

- \$22.4 billion was attributable to the power sector, including more than \$8 billion in loans for solar and wind energy projects.
- \$20.7 billion was attributable to the oil and gas sector, including liquefied natural gas (LNG) and exploration and production projects.

After years of hopes that the US infrastructure sector would become more active, it may have turned a corner in 2014 with several significant transactions reaching financial close and many others in active procurement.

Total US project bond volume was stable in 2014, with about \$12.3 billion in total transactions (down slightly from the \$13.5 billion in 2013, but considerably more than the \$7.1 billion in 2012). Some interesting developments took place in this market, however, which may bode well for the financing of solar and other renewable projects in the future, including:

- The first crowdfunded transaction with the closing of SolarCity's solar bond offering on its website.
- The first green bond by a yieldco with the closing of NRG Yield's \$400 million Rule 144A offering. While these bonds are not materially different from other traditional debt securities, they may attract investors with a particular investment strategy, such as those that have a renewable or clean energy mandate or focus.
- The completion of two more solar securitization transactions.

There were periods of uncertainty in 2014, however. This was attributable to a variety of developments, including:

- Legislative inactivity or delayed action on certain key issues, for example, federal tax credit extensions and surface transportation funding.
- The crisis in Ukraine and sanctions on the Russian energy sector.
- Ongoing trade disputes with China with respect to solar panel components.
- The November 2014 mid-term elections and anxiety about what a Republican controlled Congress may do on various key issues.



- The steep decline in oil prices.
- Periods of volatility in the price of natural gas.

These developments did not, however, dampen investor confidence or their appetite for deals. Awash in cash, investors (from commercial banks and pension funds to hedge funds and debt funds) continued to seek projects in which to invest their capital. Some of these developments may have an adverse impact on the project finance sector in 2015 (see *Outlook for 2015*).

All deal data referenced in this Article was obtained from Thomson Reuters.

FINANCING TRENDS

2014 was a good year for project finance borrowers. They were able to take advantage of the liquidity in the credit markets to secure favorable terms ranging from low spreads to modified cash sweeps. This was especially the case for the most attractive projects. Sponsors went to the credit markets to get financing to build new projects (especially in the wind and solar sectors), acquire existing projects and finance existing debt. There were also several dividend recapitalizations in 2014, although not as many as in 2013. While dividend recaps are a relatively new development in the project finance sector, sponsors are using them to realize value from their energy projects without selling or diluting their equity interests. These loans are repaid from the revenues generated by the projects.

Continuing a trend from 2013, more energy deals are being structured as holdco loans. Unlike a typical project finance transaction, these loans are not directly secured by the underlying project assets. Instead they are repaid from the share of a project's cash flows that is distributed to the holdco. This structure is a viable option for lenders who want to invest in renewable energy projects that have tax equity investors because many tax equity investors will not invest in leveraged transactions (see *Practice Note, Project Finance: Sources of Available Financing: Tax Equity Investors* (<http://us.practicallaw.com/8-422-4846#a314400>)).

ACTIVE COMMERCIAL BANK MARKET

Despite concerns that commercial banks might limit the number and volume of project finance loans they make to comply with Basel III, this market was active in 2014. The high level of activity in the commercial bank market was due to:

- The full return of the European commercial banks to the market after a considerable retrenchment in 2011-2012 because of concerns about Basel III and the impact of the Eurozone crisis. Smaller regional European banks are also becoming more active in this market (for example, Banca IMI, Landesbank Hessen-Thüringen, DZ Bank and NordLB).
- The continued participation of the Japanese, Canadian and regional US banks that entered the market in the wake of the European banks' departure from the US market.
 - Japanese banks were mandated arrangers in many of the largest transactions that closed in 2014, including the Cameron LNG, the Sasol petrochemical and the Astoria Power plant financings;
 - Canadian banks were involved in all sectors, including the Atlantic Power, the MidStates Petroleum and the Ports America financings; and

- US regional banks were involved in many projects, including Keenan II and Alpine Solar.
- The continued participation of investment banks in this market.
- The types of projects for which financing was sought in 2014, including large-scale construction projects, such as LNG terminals and greenfield solar and wind projects. This is not surprising given the big push to start construction or bring these renewable energy projects online to qualify for federal tax credits.

Commercial banks seem to be managing the Basel III liquidity requirements by, except in limited instances:

- Limiting loan maturities to between seven and nine years. However, to maintain client relationships and to compete with Japanese lenders that are generally more willing to provide loans with longer tenors, some banks were willing to provide longer-dated financing in certain cases. For example:
 - Cameron LNG's \$5 billion in term loans mature in 2030;
 - Freeport LNG's \$4.4 billion term loans mature in 2038;
 - Keenan II's \$133 million term loan to finance its 152 MW wind farm matures in 2029; and
 - McCoy Solar Funding's \$425 million term loan to finance its solar project matures in 2035.
- Taking smaller tickets to limit their exposure to any given borrower. However, some banks were willing to make larger commitments (\$150 million to \$250 million) to participate in the deals that came to market. In some cases, banks went out with large commitments on the understanding that they would be reduced amid high investor demand.

The competition for deals continues to put downward pressure on pricing. Commercial bank loans were generally pricing around LIBOR plus 200 basis points (bps) but high quality and well-sponsored projects were pricing below that. For example:

- The Freeport LNG commercial bank loans were priced at LIBOR plus 175 bps.
- The \$204 million construction loan for the Stephens Ranch wind project was priced at LIBOR plus 150 bps.
- The \$196 million Freeport Power financing was priced at LIBOR plus 140 bps.

But, as usual, riskier projects were priced much higher. For example:

- The \$550 million term loan for Competitive Power Venture's 725 MW merchant facility in Maryland was priced at LIBOR plus 350 bps.
- The \$1 billion NRG Energy term loan was priced at LIBOR plus 625 bps. This loan backs the acquisition of several assets including the Edison Mission Energy generation assets, the Dominions retail electric assets and the Roof Diagnostics Solar assets.

While many deals closed in 2014, total loan volume was boosted by a small number of mega-deals, including:

- Cameron LNG's approximately \$7.8 billion financing for its \$10 billion LNG project. This financing includes a \$2.5 billion loan from Japan Bank for International Cooperation (JBIC) and about \$4.9 billion from a syndicate of commercial banks. Nippon Export and Investment

Insurance (NEXI) insured \$2 billion of the commercial bank debt and the sponsors provided completion guarantees. The JBIC loan was priced at LIBOR plus 125 bps and the commercial loans were priced at LIBOR plus 175 bps. Compare this to the Sabine Pass LNG term loans that closed in 2012 and 2013. The 2012 \$3.6 billion term loan was priced at LIBOR plus 350 bps with a step-up to LIBOR plus 375 bps and the 2013 financing was priced at LIBOR plus 300 bps during construction with a step up to LIBOR plus 325 bps during operation (see Articles, US Project Finance: Key Developments and Trends from 2012 and the Outlook for 2013: Cheniere Energy: Sabine Pass (<http://us.practicallaw.com/0-523-1991#a275333>) and *US Project Finance: Key Developments and Trends from 2013 and the Outlook for 2014* (<http://us.practicallaw.com/4-543-6085>)).

- Freeport LNG's \$9 billion financing for the first two trains of its LNG facility. The loans were structured without completion guarantees, making this financing the largest fully non-recourse construction project financing in history. This transaction was structured as follows:
 - The financing for train 1 includes a \$2.6 billion loan from JBIC, a \$1.3 billion term loan from six commercial banks, a \$424 million five-year letter of credit and a \$50 million working capital facility. NEXI insured about \$1.1 billion of the commercial bank portion; and
 - The financing for train 2 includes a \$3.975 billion seven-year mini-perm construction facility and a working capital facility of \$50 million.
- Sasol Chemical's \$4.4 billion seven year mini-perm financing for its petrochemical plant expansion in Louisiana.

TERM LOAN B MARKET REMAINS HOT

Since the financing of Panda Temple and Panda Sherman projects in 2012, term B loans (TLBs) have become a mainstay in US project finance. Of the approximately \$60.2 billion in loan transactions that closed in 2014, about \$9.2 billion was attributable to these loans. While this volume is an indication of the healthy state of this market, this represents a decline from 2013 in terms of the aggregate number of transactions that closed and total loan volume. In 2013, there were more than 30 of these transactions for a total value of about \$14.3 billion. This was about half of the US loan market for that year.

This reduced volume was not due, however, to any depression or volatility in this market or the credit markets more generally. Rather, many of the projects that came on the market in 2014 were more suitable for the commercial bank market, such as:

- Large scale construction projects (for example, the Freeport and Cameron LNG financings). While some term B lenders are willing to assume some construction risk (for example, in the case of natural gas-fired construction projects), these complex multibillion construction projects are beyond many term B lenders' comfort level.
- Greenfield wind and solar projects.

There were also not as many dividend recaps in 2014, which was a main driver of TLB activity in 2013. However, the TLB market continues to a viable option to finance merchant or quasi-merchant natural gas projects, to refinance existing debt and to back project acquisitions.

Some of the notable TLB transactions that closed in 2014 include:

- The \$375 million Calpine Corp. TLB to partially finance its acquisition of the 1 GW Guadalupe combined cycle power plant.
- The \$351 million Chief Power TLB to finance the acquisition of two coal-fired power plants from Exelon. This transaction was surprising to many industry observers since activity in the coal sector has been limited because of uncertainty surrounding the proposed emission rules (see *Clean Power Plan*).
- The \$1.6 billion TPF/Rolling II and the \$675 million ExGen Texas Power TLB transactions that were used to pay a dividend to the projects' sponsors.
- The \$550 million Houston Fuel Oil Terminal TLB which was used to refinance existing debt.

The pricing on these deals was very favorable for borrowers. These transactions were generally pricing between LIBOR plus 325 bps and LIBOR plus 425 bps, but the more attractive deals were able to secure better rates. For example:

- Covanta Energy was priced at LIBOR plus 225 bps.
- Calpine Construction Financing Co. was priced at LIBOR plus 250 bps.

Similarly, riskier projects were priced higher. For example, the Chief Power financing was priced at LIBOR plus 475 bps and the Panda Stonewall and GPRE Ethanol projects were both priced at LIBOR plus 550 bps. Compare this to the two Panda projects that closed in 2012. They were priced at LIBOR plus 1000 bps and LIBOR plus 700 bps (see *Article, US Project Finance: Key Developments and Trends from 2012 and the Outlook for 2013: Return of the Term B Loan Market* (<http://us.practicallaw.com/0-523-1991#a309968>)).

Tenors on these transactions remained in the 5-7 year range.

INCREASED DEVELOPMENT BANK ACTIVITY

The US has not historically been a significant recipient of financing from development banks and export credit agencies (ECAs). Where these entities were involved, it was mainly the North American Development Bank (NADB), an agency formed by the US and Mexican governments to invest in infrastructure along the US-Mexico border (see *Article, US Project Finance: Key Developments and Trends from 2012 and the Outlook for 2013: Increased Involvement of Bilateral and Multilateral Agencies* (<http://us.practicallaw.com/0-523-1991#a1014935>)).

However, foreign development banks and ECAs were involved in many US transactions that closed in 2014. They were generally involved in transactions in which they had a national interest. Examples of the transactions that involved development agencies include:

- JBIC's involvement in the Cameron and Freeport LNG projects. Japanese companies, including Mitsui & Co., Ltd and Mitsubishi Corporation are equityholders and offtakers in the Cameron LNG project. The Freeport LNG facility has tolling agreements with Toshiba Corporation, Osaka Gas, and Chubu Electric.
- Korea Development Bank's involvement in:
 - Sasol's financing for its petrochemical plant. Toyo Engineering Ltd. has entered into a front end engineering design agreement for this project;

- the financing for Mississippian Lime project. Korean company Atinum is an equityholder in this project; and
- OCI Solar Power's Alamo project. This project is owned by Korean private equity firm, OCI.
- KfW-IPEX, the German ECA, was also involved in the Sasol petrochemical financing. Sasol is a multinational company with a German subsidiary.

While financing from development banks and ECAs present unique issues that borrowers and other lenders must consider, these entities can provide financing on more favorable terms, including lower interest rates and longer maturities. For example, the JBIC loan in the Cameron project was priced at LIBOR plus 125 bps.

For more on the issues this type of financing may present, see *Practice Note, Project Finance: Sources of Available Financing: Multilateral Development Agencies* (<http://us.practicallaw.com/8-422-4846#a68727>).

THE GROWTH OF YELDCOS

With the success of the first US yieldco, NRG Yield (NRG Yield was priced in July 2013 at \$22 per share and has traded at over \$55 per share), market observers predicted that more yieldcos would be completed in 2014. This prediction was borne out with the creation of three new yieldcos and the consideration of this structure by many other project developers. The three new yieldcos are:

- **Abengoa Yield (ABY).** In April 2014, Abengoa filed a registration statement for this entity. The IPO was completed in June 2014 with the sale of about 24.9 million shares at \$29 per share for total gross proceeds of about \$720 million. ABY holds renewable energy, conventional power and electric transmission lines and other contracted revenue generating assets in North America, South America and Europe. For more information on its IPO, see *What's Market Summary, Abengoa Yield plc IPO*.
- **TerraForm Power.** In May 2014, SunEdison's subsidiary, TerraForm Power Inc., filed a registration statement to issue about 20.1 million shares of class A common stock. The IPO was completed in July 2014 with the shares priced at \$25 per share for total gross proceeds of about \$500 million. At the time of the IPO, TerraForm Power had a portfolio of 524 MW of solar farms in the US, Canada, the UK and Chile. For more information on its IPO, see *What's Market Summary, TerraForm Power, Inc. IPO*.
- **NextEra Energy.** In May 2014, NextEra Energy Partners subsidiary, NextEra Energy Partners LP, publicly filed for an IPO. In June 2014, this yieldco issued about 16.3 million shares at \$25 per share for a total of about \$406.3 million. This yieldco will initially own a portfolio of ten wind and solar assets with a total generating capacity of 990 MW.

The four US listed yieldcos currently hold assets with a cumulative installed capacity of about 6000 MW. There are also two Canadian yieldcos with US assets, TransAlta Renewables and Pattern Energy Group.

To grow, yieldcos rely on new assets being added to their portfolio, whether these are recently completed assets that are sold to them by their parent or assets acquired from third parties. To ensure a steady flow of assets, a yieldco may have a right of first refusal or right of first

offer with respect to certain assets owned by their parent. In 2014, NRG contributed several assets into NRG Yield, including:

- TA High Desert, a 20 MW solar facility in Lancaster, California (see *What's Market, NRG Yield, Inc. Acquisition Agreement Summary of the acquisition of the equity interests of NRG Solar Mayfair LLC*).
- The El Segundo Energy Center, a 550 MW fast-start, gas-fired facility in El Segundo, California (see *What's Market, NRG Yield, Inc. Acquisition Agreement Summary of the acquisition of equity interests of Natural Gas Repowering LLC*).
- Walnut Creek, a 500 MW gas-fired project in Industry, California (see *What's Market, NRG Yield, Inc. Summary of the Acquisition of equity interests of WCEP Holdings, LLC*).
- Laredo Ridge, an 81 MW wind facility located in Petersburg, Nebraska, Buffalo Bear, a 19 MW wind facility in Oklahoma, Taloga, a 130 MW wind facility in Oklahoma and Pinnacle, a 55 MW wind facility in West Virginia (see *What's Market, NRG Yield, Inc. Acquisition Agreement Summary of the acquisition of equity interests of Mission Wind Laredo, LLC and Tapestry Wind LLC*).

In the past year, yieldcos have also acquired several assets from third-party developers, including:

- NRG Yield's acquisition of the Alta Wind facility from Terra-Gen Power LLC for \$870 million, subject to working capital adjustments. For more information on the acquisition, see *What's Market, NRG Yield, Inc. Summary of the Alta Wind Acquisition Agreement*. The acquisition was financed with a \$442 million equity issuance and \$492 million in ten-year green bonds priced at 5.375%, which raised \$54 million for working capital adjustments and \$10 million to cover transaction costs in addition to covering the purchase price. For more information on this transaction, see *What's Market, NRG Yield, Inc. Follow-on Equity Offering*.
- TerraForm Power's acquisition of distributed solar facilities from Capital Dynamics for \$250 million and solar assets from Just Energy Group for about \$50 million, including assumed debt (see *What's Market, TerraForm Power, Inc. Summary of Capital Dynamics Acquisition Agreement*).
- SunEdison and TerraForm Power's agreement to acquire First Wind for \$2.4 billion, including a \$510 million earn-out. This transaction closed in early 2015 (see *What's Market, SunEdison, Inc. and TerraForm Power, LLC Summary of the First Wind Holdings Acquisition Agreement*).

Despite the attractiveness of the yieldco model and the consideration of this structure by many developers, a few developers shelved or postponed their plans to spin off subsidiaries into yieldcos including Sunpower, a subsidiary of Total and First Solar.

STABLE PROJECT BONDS MARKET

The project bond market was stable in 2014, with about \$12 billion in total bond volumes. While this may not have been as high as expected or hoped, it is significantly higher than in 2012 when volumes were about \$7.1 billion. Some transactions that closed during this period include:

- Two issuances by Sabine Pass Liquefaction to refinance part of the \$5.9 billion multi-tranche facility it entered into in 2013:
 - a \$2 billion (raised from \$1.5 billion) in senior secured notes due in 2024; and

- a \$500 million add-on to the senior secured notes due in 2023 it issued in April 2013.
- NRG Yield issued \$492 million in Rule 144A notes due 2024 to fund a portion of its \$870 million acquisition of the Alta Wind project. The bonds are to be classified as green bonds. These are the first bonds issued by a yieldco in the US.
- Abengoa Yield issued \$255 million in senior notes due 2019 to finance the acquisition of three projects (two solar power plants in Spain and one wind farm in Uruguay) Abengoa is contributing to its yieldco.
- RJS Power Holdings issued \$1.25 billion in senior unsecured notes the proceeds of which is to be used to refinance the Topaz, Raven and TLB deals that were completed in 2013 (see *Article, US Project Finance: Key Developments and Trends from 2013 and the Outlook for 2014* (<http://us.practicallaw.com/4-543-6085>)).

For more information on project bonds generally and how they are structured, see *Practice Note, Sources of Available Project Financing: Project Bonds* (<http://us.practicallaw.com/9-548-8227>).

INCREASED TAX EQUITY INVESTMENT

There was significant activity in the tax equity market. This market has been estimated at more than \$10 billion in 2014. This is a significant increase from 2013, which saw about \$6.3 billion in total tax equity investment. This growth was driven by developers' need to secure tax equity investments to qualify for:

- The production tax credit (PTC). Under current IRS guidelines projects can qualify for this credit if they are placed in service on or before December 31, 2015 (see *Extension of the Production Tax Credit*).
- The investment tax credit (ITC) before it is reduced to 10% from 30% of eligible project costs.

For more information on tax equity, see *Project Finance: Sources of Available Financing: Tax Equity Investors* (<http://us.practicallaw.com/8-422-4846#a314400>).

MORE SECURITIZATION TRANSACTIONS

The solar energy industry continues to be innovative in its quest for funding and cheaper sources of capital. In 2014, SolarCity completed two additional securitization transactions (it completed the first ever such securitization in November 2013):

- In April 2014, it issued \$70.2 million in a Rule 144A transaction. The notes are secured by and payable solely from the cash flow generated by a pool of PV systems and related leases and power purchase agreements and ancillary rights and agreements.
- In July 2014, it completed a \$201.5 million offering of two classes of notes in a Rule 144A offering, secured by cash flow generated by a pool of PV systems and project leases.

While SolarCity is the only solar energy company to have completed a securitization, this is mostly due to the size of its solar assets portfolio. As other solar energy companies expand their portfolios, they may also consider this structure.

For more information on securitization, see *Practice Notes, Securitization: US Overview* (<http://us.practicallaw.com/5-501-7050>) and *The Securities Issued in a US Securitization* (<http://us.practicallaw.com/3-501-4905>).

FIRST CROWDFUNDED SOLAR PROJECT

In October 2014, SolarCity completed the first direct sale of bonds via its website. This \$200 million offering, which is available to investors 18 years and older with at least \$1,000 to invest, consists of four tranches:

- One-year notes with a 2% coupon.
- Two-year notes with a 2.5% coupon.
- Three-year notes with a 3% coupon.
- Seven-year notes with a 4% coupon.

The earnings on these solar bonds are to be paid from income received from monthly solar payments made by homeowners, schools, businesses and government organizations across the US.

This offering is not significant given the size of the solar energy industry, but its success may be copied by other developers seeking other sources of capital for their projects.

For more information on crowdfunding, see *Practice Note, Crowdfunding Offerings Under Section 4(a)(6)* (<http://us.practicallaw.com/8-547-3405>).

NOTABLE LEGISLATIVE, JUDICIAL AND REGULATORY DEVELOPMENTS

There were several legislative, judicial and regulatory developments in 2014 that are likely to impact the project finance market in 2015.

EXTENSION OF THE PRODUCTION TAX CREDIT

On December 19, 2014, President Obama signed the Tax Increase Prevention Act of 2014 (*Pub. L. No. 113-295*) to extend certain federal tax credit provisions that had expired on December 31, 2013, including the PTC. As extended, eligible renewable projects (including, wind, biomass and geothermal) retroactively qualify for the PTC if they started construction on or before December 31, 2014. In light of this extension, the IRS is expected to issue new interpretative guidance that may allow eligible projects to qualify for this credit if they are placed in service on or before December 31, 2016 even if they are not able to meet the start of construction requirements.

Under current IRS guidance (see *Notice 2013-29*), a project has started construction if:

- The developer performed physical work on the project of a significant nature. There is no fixed minimum amount of work or monetary or percentage threshold project owners must perform to qualify for the PTC. To determine whether this test has been met, the IRS intends to examine the work done and whether the project owner has maintained a continuous program of construction. However, the IRS will not undertake this examination if the project is placed in service on or before December 31, 2015, see *Notice 2013-60*.
- The project owner incurs certain costs concerning the project. In the case of:
 - a single project, a project owner can claim the credit for individual facilities that form a single project if it incurred or paid at least 3% of the project cost and the total aggregate costs of those facilities at the time the project is placed in service is less than or equal to 20 times the costs the project owner incurred or paid on or before December 31, 2013 (or following the renewal, December 31, 2014); and

- a single facility that is not a single project and that cannot be separated into individual facilities, it incurred or paid at least 5% of the total cost of the facility at the time the facility is placed in service.

For more information on the PTC and the IRS guidance, see *Legal Updates, IRS Clarifies Eligibility Requirements for the Production Tax Credit* (<http://us.practicallaw.com/6-577-9925>), *IRS Further Clarifies Start of Construction Rules for Purposes of the PTC* (<http://us.practicallaw.com/1-542-7266>) and *IRS Issues Guidelines Defining When Construction Begins for Purposes of Qualifying for the Production Tax Credit* (<http://us.practicallaw.com/5-525-8577>).

While the retroactive and limited extension was not what developers and lobbyists had sought, it does allow certain projects to qualify for this credit that might not have otherwise qualified. The projects that may benefit from the extension include those that:

- Started construction before January 1, 2014 but were unable meet the criteria set out by the IRS in terms of the amount and nature of physical work completed or the costs incurred concerning the project.
- Have started construction but may have trouble meeting the December 31, 2015 placed in service date. While these projects may have been able to qualify for this credit if they completed enough physical work, the extension may eliminate the need for this examination and IRS scrutiny altogether.

This limited and much delayed extension continues a problem that has plagued the wind energy industry since the PTC was first implemented, namely the inability of the industry to properly plan because of uncertainty surrounding the availability of this credit. This has resulted in a boom and bust cycle for wind energy project development with the number of projects coming online increasing and decreasing from one year to the next based on the status of this credit. With each expiration of the PTC, new installations have fallen precipitously. For example, according to data obtained from the American Wind Energy Association (AWEA), new installations fell from:

- 1,665 MW in 2003 to 397 MW in 2004.
- 10,003 MW in 2009 to 5,218 MW in 2010.
- 13,082 MW in 2012 to 1,088 MW in 2013.

The Tax Increase Prevention Act of 2014 also extended the 50% bonus depreciation that expired at the end of 2013 to December 31, 2014. This depreciation also applies to assets that were purchased in 2014 after this credit had lapsed.

CLEAN POWER PLAN

On June 2, 2014, the Environmental Protection Agency (EPA) released the Clean Power Plan Proposal (and the associated press release), a plan to cut greenhouse gas (GHG) emissions from existing fossil fuel fired power plants by 30% by 2030 from 2005 levels. The plan creates specific goals the states would need to meet by 2030 and require meaningful progress towards those goals by 2020.

Under the plan, each state would be assigned a goal that would take into account several factors, including the state's fuel mix and electricity market. Interested stakeholders had until December 1, 2014 to submit comments. If implemented, many coal fired power plants may require

multibillion dollar investments to comply with the new emissions requirements. As a result, many politicians and market participants have expressed opposition to the plan. Senator Mitch McConnell (R.-Ky.) introduced legislation in the last Congress, the Coal Country Protection Act (S. 2414, 113th Cong. (2014)), to prevent it.

On January 7, 2015, the EPA announced during a media call that it would not take final action on the Clean Power Plan and several other rules setting carbon emission standards on power plants until "mid-summer" of 2015. Given the level of opposition to this plan and current Republican control of Congress, the future of this plan is uncertain.

For more information on this plan, see *Legal Updates, EPA Issues Carbon Emission Guidelines for Existing Power Plants* (<http://us.practicallaw.com/7-570-0385>) and *EPA Extends Comment Period for Clean Power Plan Proposal* (<http://us.practicallaw.com/6-581-6225>) and *Article, US Project Finance: Key Developments and Trends from 2013 and the Outlook for 2014: New EPA Power Plant Emissions Regulations* (<http://us.practicallaw.com/4-543-6085#a94165>). For all EPA actions on these rules, see Fact Sheet: Clean Power Plan & Carbon Pollution Standards Key Dates.

DOE LNG EXPORT LICENSES

As of December 31, 2014, the DOE has issued nine licenses authorizing US companies to export up to 10.56 billion cubic feet per day (Bcf/d) of LNG to countries with which the US does not have a free trade agreement (FTA). The DOE has also issued about 40 licenses to countries with which the US has an FTA, although these licenses have not received the same level of attention (see *LNG Export Licenses*).

This is because these licenses are not subject to extensive regulatory scrutiny. Under Section 3(a) of the Natural Gas Act (15 U.S.C. § 717b(a)), the DOE is authorized to issue licenses to export LNG to countries only after it has determined that the proposed exports are consistent with the public interest. In making this determination, the DOE considers, among other things, the impact these exports would have on US energy needs and prices. Exports to countries with which the US does not have an FTA are subject to this examination. By contrast, exports of LNG to countries with which the US has an FTA are deemed to be consistent with the public interest (see Section 3(c) of the Natural Gas Act (15 U.S.C. § 717b(c))).

Because of the time it takes to review these applications and the volume of LNG this represents, in 2014 the DOE:

- Modified its procedures for granting these licenses. As of August 15, 2014, the DOE no longer grants conditional authorizations to export LNG to non-FTA countries. It intends to issue final export authorizations after the Federal Energy Regulatory Commission (FERC) or the Maritime Administration of the Department of Transportation (MARAD), as the case may be, completes its review of the project. FERC reviews terminals that are to be located onshore or in state waters (15 U.S.C. § 717b(e)) and MARAD reviews projects that are to be located beyond state waters (see Section 3(9) of the Deepwater Ports Act (33 U.S.C. 1501 et seq)). This change is intended to make the process more efficient by prioritizing DOE resources on more commercially advanced projects while providing the DOE with more information on the projects. By focusing on projects that have a higher likelihood of being built, the DOE can better assess the cumulative impact of the exports on the US economy and prices.

- Requested an update from the Energy Information Administration's (EIA) of its January 2012 study of LNG export scenarios. The new study assesses the impact on domestic energy markets, focusing on consumption, production and prices of LNG exports between 12 and 20 Bcf/d, with these exports phased in at a rate of 2 Bcf/d each year beginning in 2015. The previous study only studied the impact of exports between six and 12 Bcf/d of LNG. The study concluded that additional exports of LNG would have a positive impact on the US economy. In particular, the study noted that while increased exports would result in higher domestic gas prices, the increase is offset by higher producer prices and increases in domestic spending for goods and services (see *Effect of Increased Levels of Liquefied Natural Gas Exports on U.S. Energy Markets, October 2014*).

For more information on the DOE's licensing procedures and the licenses that have been issued to date, see the following Legal Updates:

- *The Department of Energy Makes Significant Changes to its LNG Export License Review Procedures* (<http://us.practicallaw.com/6-570-0055>).
- *Notable Recent Developments in the US LNG Sector* (<http://us.practicallaw.com/7-577-0665>).
- *DOE Issues Finalized Guidelines Eliminating Conditional Decisions for Non-FTA Export Licenses* (<http://us.practicallaw.com/5-578-4705>).

For a summary of the status of the nine licenses authorized by the DOE, see *Box, LNG Non-FTA Export Licenses*.

Ukraine Crisis Sanctions

In the immediate aftermath of Russia's actions in Ukraine (its annexation of Crimea in March 2014 and its support of separatist activities in eastern Ukraine), president Obama issued Executive Order No. 13660, No. 13661 and No. 13662 to sanction Russia's actions. Under these executive orders and related directives issued by the Commerce Department's Bureau of Industry and Security (BIS) and the Treasury Department's Office of Foreign Assets Control (OFAC), US persons are prohibited, among other things, from:

- Transacting in providing financing for or otherwise dealing in new debt of longer than 90 days maturity to Russian energy companies. These measures apply to Gazpromneft, AK Transneft OAO, OAO Novatek and Rosneft.
- Transacting in, providing financing for or otherwise dealing in new debt of longer than 30 days maturity or new equity to certain Russian financial institutions, including the Bank of Moscow, Gazprom Bank OAO, VTB Bank OAO and Sberbank of Russia.
- Exporting goods, services (not including financial services) or technology in support of the exploration or production for Russian deepwater, Arctic offshore or shale projects that have the potential to produce oil. These sanctions apply to Gazprom OAO, Gazpromneft, Lukoil OAO, Surgutneftegas and AO Rosneft.

On December 19, 2014, President Obama signed Executive Order No. 13685 which imposes a comprehensive ban on business with the Crimean region of Ukraine. In particular, this executive order prohibits:

- New investments in the region by a US person, wherever located.
- The import into the US directly or indirectly, of any goods, services or technology from this region.

- The export, re-export, sale or supply, directly or indirectly, from the US or by a US person, wherever located, of any goods, services or technology to the region.
- Any approval, financing, furtherance or guarantee by a US person, wherever located, of a transaction by a foreign person where the transaction by that foreign person is prohibited if performed by a US person or within the US.

While these sanctions have had an effect on Russia and US investments in the region, none of these measures prevent Russia from exporting oil or natural gas.

To further increase the pressure on Russia, on December 18, 2014, Congress passed the Ukraine Freedom Act of 2014 (*Pub. L. 113-272*), which authorizes or directs the President to take certain actions against Russia and certain Russian companies. Among other things, the act:

- Directs the President to impose three or more specified sanctions against Rosoboronexport, a state-owned defense company.
- Authorizes the President to impose three or more specified sanctions against a person that knowingly makes a significant investment in a special Russian crude oil project. This includes projects located in an exclusive economic zone of the Russian Federation in waters more than 500 feet deep, the Russian Arctic offshore locations, or shale formations located in Russia.
- Authorizes the President, through the BIS or OFAC, to impose additional licensing requirements or other restrictions on the export of items for Russia's energy sector, including equipment used for tertiary oil recovery.
- Directs the President to impose specified sanctions on Gazprom OAO if it withholds significant natural gas supplies from North Atlantic Treaty Organization (NATO) member countries, or further withholds significant natural gas supplies from countries such as Ukraine, Georgia, or Moldova.

The scope of sanctions President Obama can choose from include prohibiting:

- Assistance from the US Export-Import Bank, the official ECA of the US government (which is now authorized through June 30, 2015).
- Transfers of credit or payments between financial institutions.
- Investing or purchasing debt of longer than 90 days' maturity or equity of the sanctioned person.

While the precise scope of any sanctions the President may impose is unclear, companies should review their operations and business dealings to ensure they do not run afoul of any restrictions.

For more information on these measures, see Legal Updates:

- *US Imposes Tighter Sanctions on Key Russian Sectors* (<http://us.practicallaw.com/5-581-1445>).
- *US Imposes Stronger Sanctions on the Russian Energy Sector* (<http://us.practicallaw.com/8-577-1565>).
- *US Treasury Exempts Derivatives from Russia Sanctions* (<http://us.practicallaw.com/8-577-4385>).
- *US Expands Sanctions Against Russia* (<http://us.practicallaw.com/3-562-1045>).

- Updated: Department of Treasury Further Expands Sanctions Against Russia (<http://us.practicallaw.com/2-575-0066>).

For information on the background of the crisis, see *Article, The Crisis in Ukraine: Lessons for Investors* (<http://us.practicallaw.com/8-567-6766>).

HYDRAULIC FRACTURING

On May 9, 2014, the EPA issued an advanced notice of proposed rulemaking intended to shape how information is collected regarding what chemicals and mixtures are used in hydraulic fracturing (fracking). The components of fracking fluids are generally known and include about 99.5% sand and water and 0.5% of salt, acid, distillates, ethylene glycol, isopropanol and sodium or potassium carbonate. However, oil and gas companies try to protect the exact composition of these fluids as trade secrets. A determination on this rule is expected in 2015.

For more information, see *Legal Updates, EPA Extends Comment Period for Fracking Fluids Disclosure Rules* (<http://us.practicallaw.com/3-574-5526>) and *EPA Extends Comment Period for Fracking Fluids Disclosure Rules* (<http://us.practicallaw.com/3-574-5526>). For more information on fracking, see *Practice Note, Understanding Hydraulic Fracturing: Issues, Challenges and Regulatory Regime* (<http://us.practicallaw.com/8-518-4410>).

New York Bans Fracking

On December 17, 2014, fracking was banned in the state of New York because of concerns over health risks associated with the practice. Even before this ban was in place, several NY counties had passed legislation or ordinances limiting or banning fracking. For example, the Town of Dryden used zoning restrictions to ban this practice. This ban was upheld in June 2014 (see *Wallach v. Town of Dryden*, 16 N.E.3d 1188 (N.Y. 2014)). For more information on the New York State ban, see *Legal Update, New York State Bans Fracking* (<http://us.practicallaw.com/5-593-2485>).

North Carolina Lifts Fracking Ban

In June 2014, North Carolina adopted the Energy Modernization Act of 2014, which lifted a statewide ban on the issuance of permits for fracking (2014 N.C. Sess. Laws 2014-4 (S.B. 786)). The law, among other things:

- Prohibits local ordinances that prevent fracking activities.
- Makes it unlawful to disclose confidential information associated with fracking, including the chemical composition of fracking fluids.

DOE LOAN GUARANTEE PROGRAM

On July 3, 2014, the DOE issued a final loan guarantee solicitation, the Renewable Energy and Efficient Energy Projects Loan Guarantee, under Section 1703 of the Energy Policy Act of 2005, as amended (42 U.S.C. §§ 16511-16516) for innovative renewable energy and energy efficiency projects located in the US that avoid, reduce or sequester greenhouse gases. Qualifying projects can apply for financing for up to \$4 billion in loan guarantees. This is the first solicitation since the Solyndra bankruptcy and ensuing controversy in 2011. The DOE has identified five key technology areas of interest (but other eligible projects may also qualify):

- Advanced grid integration and storage.
- Drop-in biofuels.

- Waste-to-energy.
- Enhancement of existing facilities.
- Efficiency improvements.

For more information on this program, see *Legal Update, DOE Issues Final Solicitation for Renewable Energy and Energy Efficient Projects* (<http://us.practicallaw.com/5-573-9845>).

EASING OF OIL EXPORT CONTROLS

In response to the oil shortages in the 1970s, Congress passed the Energy Policy and Conservation Act of 1975 (EPCA) restricting the export of crude oil (see 42 U.S.C. 6212). Under this Act and accompanying regulations, US oil companies must have a license to export crude oil to all destinations, including Canada, unless limited exceptions apply (see Section 754.2 of the Export Administration Regulations (EAR) (15 C.F.R. Parts 730-774)). With the increase in oil production in the US (the US has surpassed both Saudi Arabia and Russia to become the largest producer of oil and natural gas liquids), many have advocated the lifting or easing of restrictions on the export of domestically produced crude oil (for example, in January 2014, Senator Lisa Murkowski (R.-Alaska) released a white paper arguing for a looser export restrictions).

On December 30, 2014, BIS issued guidance clarifying that certain lightly processed crude oil falls within the definition of "petroleum products" that may be exported without a specific authorization. The new guidance provides that the BIS must consider applications on a case-by-case basis and generally will approve proposed exports if they are consistent with the national interest and the purposes of the Energy Policy and Conservation Act. To obtain and comply with a BIS license to export foreign-origin crude oil from the US, one must be able to demonstrate that the foreign crude will not be commingled with US-origin crude oil before export.

For more information on this guidance, see FAQs: Crude Oil and Petroleum Products December 30, 2014.

REITS AND RENEWABLE ENERGY

On May 9, 2014, the Internal Revenue Service (IRS) issued regulations providing a framework for analyzing the types of assets in which a real estate investment trust (REIT) can invest under Sections 856 through 859 of the Internal Revenue Code (Code). The proposed regulations, among other things:

- Provide a safe harbor for determining whether certain assets are real property for purposes of these sections.
- Clarify the facts and circumstances test for determining whether assets that are not listed on the safe harbor list qualify as real property.

The proposed regulations do not change the definition of real property or a real estate asset as set out in the Code or the Income Tax Regulations, however. Real property is still defined to include land, inherently permanent structures and structural components. Rather, the proposed regulations establish a new analytical framework for determining whether an asset is real property for purposes of Sections 856 through 859 of the Code.

For more information, see *Legal Update, Proposed IRS Regulations on the Definition of Real Property for Purposes of Qualifying as a REIT and Implications for Renewable Energy* (<http://us.practicallaw.com/4-568-1406>) and *Practice Note, REITS: A Viable Alternative for Renewable Energy Project Financing?* (<http://us.practicallaw.com/2-501-8230>).

US CHINA SOLAR PANEL TRADE DISPUTES

The US imposed significant duties on Chinese solar panel manufacturers in 2014. On December 16, 2014, the Department of Commerce announced final determinations in the antidumping duty (AD) investigations of imports of certain crystalline silicon photovoltaic (PV) products from the People's Republic of China (China) and Taiwan and countervailing duty (CVD) investigation of imports of these products from China. As a result, it imposed AD duties ranging from 26.71% to 165.04% and CVD duties ranging from 27.64% to 49.79%.

On January 21, 2015, the US International Trade Commission (USITC) confirmed the Commerce Department's preliminary findings and determined that the US solar industry is materially injured by reason of imports of these PV products from China and Taiwan. The Commerce Department intends to issue CVD orders on imports of these products from China and AD orders on imports of these products from China and Taiwan.

This investigation had been going on for some time. The Commerce Department announced its preliminary findings in the summer of 2014. Following these announcements, GTM Research found that solar panel prices increased by an average of about 14%.

Many project developers are concerned that these tariffs and a trade war with China on PV components may limit growth by increasing the cost of solar energy, given the reliance of the US solar energy market on Chinese manufactured solar components. As of 2013, more than 31% of all solar panels used in the US were manufactured in China. This percentage increases to 50% in the distributed generation market.

For more information, see *Legal Updates, Department of Commerce Imposes Tariffs on Chinese Solar Panels* (<http://us.practicallaw.com/9-570-4085>) and *Department of Commerce Imposes Antidumping Duties on Solar Panels from China and Taiwan* (<http://us.practicallaw.com/2-576-3605>). For more information, see *Practice Note, Anti-dumping and Countervailing Duties* (<http://us.practicallaw.com/0-543-3866>).

COMMITTEE ON FOREIGN INVESTMENT IN THE U.S. (CFIUS)/ RALLS DECISION

In July 2014, the US Court of Appeals for the District of Columbia held that President Obama's divestment order deprived Ralls Corporation of its property interests in its wind projects without due process and remanded the case to the lower courts for further review (see *Ralls Corp. v. Comm. on Foreign Inv. in the U.S.*, 758 F.3d 296 (D.C. Cir. 2014)). Ralls Corporation, a Delaware corporation owned by two Chinese nationals, acquired four American-owned limited liability companies (LLCs) organized to develop wind farms in north-central Oregon that were either within or near a restricted airspace and bombing zone maintained by the US Navy. Ralls Corporation did not submit the transaction for CFIUS review before closing, but after the transaction closed, Ralls Corporation gave CFIUS detailed written notice of the deal.

The court held, in part, that Ralls Corporation was entitled to:

- Notice of the official action.
- Review the unclassified evidence on which the divestment decision was made.
- Respond to that evidence.

While this decision may add uncertainty to CFIUS' decisions, it does not change the President's ability to make divestment decisions to protect national security interests.

For more information on this case, see *Legal Update, D.C. Court of Appeals Finds Breach of Due Process by CFIUS, Remands for Order to Release Non-classified Information* (<http://us.practicallaw.com/1-575-9345>).

WIFIA, HIGHWAY TRANSPORTATION FUND AND OTHER INFRASTRUCTURE DEVELOPMENTS

There were several notable developments in the infrastructure sector in 2014, including:

- **Funding of the Highway Trust Fund (HTF).** On July 31, 2014, Congress approved the Highway and Transportation Funding Act of 2014 (*Pub. L. No. 113-159, 128 Stat 1839*), a stop gap measure to prevent the insolvency of the HTF and to finance federal highway and other transportation projects through May 31, 2015. This act also extends federal highway programs authorized under the Moving Ahead for Progress in the 21st Century Act (MAP-21), including the Transportation Infrastructure Finance and Innovation Act program, which was due to expire on September 30, 2014. For more information, see *Legal Updates, Congress Passes Bill to Temporarily Fund the Highway Trust Fund* (<http://us.practicallaw.com/3-576-8985>) and *President Obama Signs the Highway and Transportation Funding Act of 2014 with Pension Funding Provisions* (<http://us.practicallaw.com/1-577-0965>).
- **The Build America Investment Initiative.** This is a government-wide initiative that aims, among other things, to increase infrastructure investment by engaging with state and local governments as well as private sector investors to encourage collaboration, expand the market for public private partnership (P3s) and get more out of existing federal financing programs.
- **The Water Infrastructure Finance and Innovation Act (WIFIA).** Created under the Water Resources Reform and Development Act of 2014 (WRRDA) (*Pub. L. No. 113-121, 128 Stat 1193*). The WIFIA makes available low interest rate federal loans to partially fund eligible water and wastewater infrastructure projects. For the first year of the program, \$20 million has been appropriated for each of the EPA and the Army Corps of Engineers, which are charged with administering the program. The EPA administers the WIFIA program for water, wastewater and desalination projects and the Army Corps of Engineers administers the program for water resources projects. The appropriation increases annually, up to a maximum of \$50 million for each of the EPA and the Army Corps in 2019.

For more information on these and other developments and their potential impact on the US infrastructure sector, see *Article, Market Update: A Review of the US Public Private Partnership (P3) Sector in 2014* (<http://us.practicallaw.com/6-593-7425>).

NOTABLE INDUSTRY DEVELOPMENTS

NATURAL GAS

There was some volatility in the gas markets in 2014, but this was attributable more to changes in the weather than any issues with US natural gas production. Because of a colder than expected winter, natural gas prices peaked at a monthly average of \$6.00 MMBtu in February 2014. But since then prices have fallen and in December 2014 fell to their lowest level in more than two years to \$2.97 MMBtu. However, the EIA expects these prices to be slightly higher in 2015 (see *Natural Gas Outlook*).

These low prices, driven by strong domestic US natural gas production, continue to result in significant financing activity. Many of the transactions that closed in 2014 were to finance the construction or acquisition of gas-fired projects, including Astoria Energy, Bayonne, Panda Stonewall and Oregon Clean Energy.

As more gas-fired plants are constructed, natural gas is accounting for more of the energy generated in the US. In 2014, it accounted for about 49% of the new generating capacity (see FERC: Energy Infrastructure Update, January 2015). However, while this share has increased significantly in recent years, natural gas still lags behind coal in terms of total energy generated. In 2014, natural gas generated 27% of the electricity generated in US, while coal accounted for 39% (see EIA, Electric Power Monthly with Data through November 2014 (January 2015)).

SOLAR

There was a lot of activity in the solar energy industry in 2014. According to FERC, the industry installed about 3,139 MW which represented about 20% of new generating capacity in the US. However, solar still represents less than 1% of the total energy generated in the US.

WIND

According to AWEA, the wind energy industry installed about 4,850 MW of new wind energy capacity in 2014 for a cumulative installed capacity of about 65,875 MW. While this is an improvement from 2013, it is significantly lower than 2012 when 13,082 MW was installed (see *Extension of the Production Tax Credit*). There are also about 98 projects under construction for an additional installed capacity of about 12,700 MW. For more information, see AWEA, US Wind Industry Fourth Quarter 2014 Market Report.

However, despite the continuing growth of this sector, wind energy accounts for only 4.5% of the energy generated in the US through November 2014 (see EIA, Electric Power Monthly with Data for November 2014 (January 2015)).

OUTLOOK FOR 2015

The price of oil has fallen significantly since June 2014. According to the EIA, the monthly average Brent crude oil prices in December 2014 was \$62 per barrel (\$62/bbl), the lowest since May 2009. This is down from about \$115/bbl in June 2014. The price has fallen even further in 2015, dropping to about \$47/bbl in January 2015. The decline is the result of many factors including:

- The US shale gas boom.

- Continuing high production from OPEC countries (especially Saudi Arabia).
- Weaker demand from China and Europe.

The EIA has forecasted that Brent crude oil prices should average \$58/bbl in 2015 and \$75/bbl in 2016 with annual average West Texas Intermediate (WTI) prices expected to be \$3/bbl to \$4/bbl lower. For more information on oil prices, see EIA: Short-Term Energy Outlook, January 2015.

While this decline did not impact deal activity in 2014, it may be an issue in 2015 and beyond for certain projects and sponsors. Continuing low prices may impact, for example:

- US natural gas and oil producers, especially those drilling in the shale plays. Fracking is capital intensive. If prices remain low for a sustained period, some companies may need to pull back on their fracking activities.
- LNG tolling agreements and US LNG projects (see *LNG Outlook*).
- Financing for certain energy companies, especially upstream companies. These loans, which are typically structured as reserve-based loans, depend on the borrower's oil and gas reserves and the price of oil. Lenders must consider the price they use to determine the size of their loans. For more information, see *What's Market: Credit Agreements in the Oil & Gas Industry* (<http://us.practicallaw.com/9-525-1178>).
- Yieldcos that primarily hold solar and wind projects. Many of these entities have already seen their share prices fall below their IPO issue prices. For example, TerraForm Power fell to \$21.58 from \$25.

FINANCING OUTLOOK

Barring some major development (for example, a rise in interest rates), the liquidity in the project finance market is expected to continue in 2015 resulting in significant deal volume. The commercial bank and TLB markets are expected to remain active as:

- Several large attractive projects are expected to seek financing in 2015, including the \$1.95 billion Cape Wind offshore wind project and the \$11.5 billion Corpus Christi LNG project.
- Yieldcos and other sponsors seek financing to fund their acquisitions to build their portfolios and to acquire assets from developers that cannot meet the PTC eligibility requirements.
- Developers try to complete construction of solar energy projects to bring them online before the changes to the ITC go into effect.

If oil prices remain low for a sustained period, some projects may no longer be economically viable forcing some project owners to sell their projects, spurring further M&A activity.

More yieldcos are also expected in the coming year. However, because of the need to acquire new assets to grow and to provide the yield investors are expecting, some market observers have questioned whether the yieldco model should be a factor in the project finance market in the long term or only the first formulation in cheaper sources of capital that renewable energy companies need to finance their projects. Obstacles to yieldco growth include:

- The sponsor's role as a growth engine. Because yieldcos rely to a significant degree on their sponsors for new projects, a strong parent company with a pipeline of projects the parent can

contribute to the yieldco is essential.

- A rise in interest rates.
- Scarcity of long-term offtake agreements.
- The continued ability of yieldcos to edge out other bidders for completed projects.

In addition, the current yieldcos currently hold mostly renewable energy assets. Yieldcos may need to diversify their portfolio to include more natural gas projects to maintain their growth and deliver on the yields their investors are looking for.

Many leveraged lending market observers are worried about the effect of the Leverage Lending Guidelines on loan market activity. Applicable regulators have announced plans to increase the frequency of leveraged lending reviews to guard against excessive risk-taking. This also involves the review of specific transactions to ensure compliance with these guidelines. However, this heightened review is not expected to impact project finance transactions.

For more information, see *Article, What's Market: 2014 Year-end Trends in Large Cap and Middle Market Loan Terms* (<http://us.practicallaw.com/5-597-1066>).

LEGISLATIVE AND REGULATORY OUTLOOK

President Obama and Congress will need address several issues in the coming year, including:

- Tax reform and the extension of various credits. Action may be taken to:
 - extend the PTC;
 - amend and/or extend the ITC; and
 - modify section 7704(d)(1) of the Code to extend the publicly traded partnership ownership structure to renewable energy projects.
- Transportation funding legislation. The current funding authorization expires on May 31, 2015 and action must be taken to ensure the HTF remains solvent and construction activity is not suspended or otherwise adversely affected.
- The Keystone XL pipeline. Although President Obama has threatened to veto this legislation, it has already been approved by Congress. Even if the bill is vetoed, however, that is not expected to be the end of the project.
- Oil export regulation. Rep. Joe Barton (R-Texas) introduced legislation in early February (HR 702) to repeal Section 103 of the ECPA (42 U.S.C. 6212).
- LNG exports to non-FTA countries.

How these issues are resolved may have significant impact on project finance activity in 2015.

SOLAR ENERGY OUTLOOK

The ITC, which has been instrumental in the growth of this sector:

- Reduces from 30% to 10% for commercial projects that are placed in service after December 31, 2016.
- Will no longer be available for any directly-owned residential projects that come online after that date.

The decrease in this credit could materially change the solar energy industry. For example, tax equity investment in these projects is expected to decrease. Given the transaction costs associated with this structure, a 10% credit may not be economically feasible (see *Practice Note, Project Finance: Sources of Available Financing: Tax Equity Investors* (<http://us.practicallaw.com/8-422-4846#a314400>)). This decrease may be an opportunity, however, for other financing structures.

Industry participants have been lobbying Congress for an extension of this credit or at the very least, a modification of the deadline to allow projects to qualify for this credit if they start construction by that date. This change, which would conform to the eligibility requirements for the PTC, as amended in 2013, would give projects more time to qualify for this credit (see *Legal Update, Production Tax Credit Amended and Extended in Fiscal Cliff Deal* (<http://us.practicallaw.com/8-523-3905>)).

In case this credit is not extended or otherwise modified, solar project developers are expected to make a major push to place projects in service by the deadline. They must also cut the costs of developing these projects if the full ITC is not available. While solar projects have had the certainty of this credit for years, solar developers do not want to suffer the same fate as wind developers. In the last several years, the PTC has been extended late and for a year at a time which has created a boom-and-bust cycle where the number of projects that come online vary dramatically from year to year.

Whether or not this credit is extended, solar project developers must continue to develop other structures for financing their projects.

For more information on the ITC, see *Practice Notes, Understanding Renewable Energy: Solar* (<http://us.practicallaw.com/2-519-8033>) and *Solar Energy Project Development Issues: Preliminary Considerations* (<http://us.practicallaw.com/7-522-8476>) and *Legal Update, Solar Energy Tax Credit Problems Arise as Deadline Looms* (<http://us.practicallaw.com/7-592-7647>).

WIND ENERGY OUTLOOK

One of the benefits of wind energy projects is their lower cost of operation versus gas-fired or oil-fired power plants that must contend with the volatility and high cost of commodity prices. However, in 2014, oil prices fell to their lowest level in more than five years. If this trend continues through 2015, wind energy projects may find it difficult to compete. The industry must also contend with the expiration of the PTC. While there is some support in Congress to renew this credit, its future is uncertain. These developments put more pressure on wind energy project developers to reduce costs and to develop alternative means of financing their projects.

Many developers have been pushing to start construction on their projects to qualify for the PTC. According to the AWEA, as of December 31, 2014, there were about 98 wind energy projects under construction with a cumulative installed capacity of about 12,700 MW of wind capacity. Many of these projects are expected to come online in 2015.

NATURAL GAS OUTLOOK

This sector is expected to be active in 2015 as domestic natural gas production continues and more coal fired projects are retired. Natural gas prices are also expected to remain low in the near term. While there was an increase in natural gas prices in early 2014, this was due more to the weather and demand than any hiccups in the natural gas market. The EIA expects the Henry Hub natural gas spot price to average \$3.34/MMBtu in the winter of 2015 compared to \$4.53/MMBtu last winter. The EIA also expects the natural gas spot price to average \$3.05/MMBtu in 2015 and \$3.47/MMBtu in 2016 down from an average of \$4.39/MMBtu in 2014 (see EIA, Short Term Energy Outlook, February 2015). This is even lower than the EIA's forecast in the January 2015 outlook.

These low prices may mean that:

- Natural gas power purchase agreements will likely remain scarce.
- Gas-fired projects, especially those operating in ERCOT and the PJM, will continue to look to the Term B loan market for financing.
- Wind and solar energy projects will remain under pressure to reduce costs to ensure they are competitive with natural gas.

LNG OUTLOOK

The US LNG project finance market was very active in 2014 with the closing of the Cameron and Freeport projects and the commencement of the financing process for several others. This level of activity is expected to continue in 2015 as these transactions close, including Lake Charles and Corpus Christi.

To date, only five LNG projects (Sabine Pass, Freeport LNG, Cameron LNG, Carib Energy and Dominion Cove) have received all the approvals they need from the DOE and FERC to construct their export terminals and export LNG to non-FTA countries. While the pace for granting these approvals has picked up in the last 12 months to 18 months, there are still more than 20 non-FTA applications pending.

Legislation was introduced in January 2015 to speed up the process of issuing LNG export licenses (see LNG Permitting Certainty and Transparency Act, S.33, 114th Cong. (2015)). This bill would require the DOE to make a decision on a project within 45 days of the date of the FERC approval. Whether or not this legislation is passed, more LNG projects are expected to be approved in the coming year, which may result in more financing activity.

However, the outlook for this market is somewhat uncertain, at least in the short term. In recent years, US producers have taken advantage of the spread between US prices (which has been at historical lows the last few years because of the shale boom) and Asian gas prices to sell their product. The decline in oil prices over the last several months has narrowed this spread and is reducing US producers' arbitrage opportunities.

The price of global LNG is indexed to the price of crude oil. The fall in oil prices has, therefore, led to a comparable drop in LNG prices. According to a FERC report, prices for LNG in Japan in January 2015 fell to about \$10 MMBtu from around \$16 at the start of 2014. With prices in the US averaging around \$4 MMBtu, this is a spread of only about 6 MMBtu. With liquefaction and shipping costs of around \$6.50, the sale of US LNG to Asian customers may not be economic.

If oil prices remain low or below the amount needed to make the sale of LNG to Asia more economical, it may be more difficult for LNG projects that have not already done so to secure long term tolling agreements, which is a requirement for any project financing. In such a case, the speed at which FERC or the DOE approves projects in the pipeline becomes less relevant as these projects may never come online.

FRACKING OUTLOOK

With the ban in New York announced in December 2014, the first state-wide ban in the US, industry observers have predicted that more bans on fracking may be forthcoming. Several communities already ban this practice. Although many of these communities do not have extensive fracking operations. As more research is done on the seismic effects of this practice, more of these bans in places with extensive fracking activities, such as Ohio, Texas and Oklahoma, may be forthcoming.

In May 2012, the Bureau of Land Management published for public comment a proposed rule governing hydraulic fracturing on federal and tribal lands that would require the disclosure of the contents of fracturing fluids. While the issuing of final rules has been delayed, in part to respond to industry concerns about the scope of the rules, a final rule is expected in 2015. For more information on these rules, see *Legal Updates, Interior Department Issues Proposed Rules on Fracking* (<http://us.practicallaw.com/1-519-3489>), *Interior Department Issues Revised Proposed Rules on Fracking* (<http://us.practicallaw.com/8-530-6124>) and *Interior Department Extends Comment Period for Fracking Regulation* (<http://us.practicallaw.com/0-531-9050>).

INFRASTRUCTURE OUTLOOK

The infrastructure market is likely to remain quite active in 2015, with many large projects expected to close in the next several months, including:

- California's Long Beach Civic Center.
- Ohio's Route 823 Portsmouth Bypass Project (Route 823)
- Pennsylvania's Rapid Bridge Replacement Project.

For more information, see *Article, Market Update: A Review of the US Public Private Partnership (P3) Sector in 2014* (<http://us.practicallaw.com/6-593-7425>).

LNG NON-FTA EXPORT LICENSES

This chart summarizes the status of these projects:

Project	Volume	DOE Approval	FERC Approval	Financing	Construction
Sabine Pass Liquefaction	2.2 Bcf/d	Yes, conditional approval granted May 2011, final approval granted.	Approval granted in April 2012 for Trains 1-4.	Financing on trains 1 and 2 closed in 2012 and on trains 3 and 4 in 2013.	Construction began on Trains 1 and 2 in August 2012 and on Trains 3 and 4 in May 2013.
Freeport LNG	1.4 Bcf/d	Conditional approval granted in May 2013; final approval granted in November 2014.	Approval granted in November 2014.	Financing on Trains 1 and 2 closed in December 2014. Financing on Train 3 expected 1st quarter of 2015.	Construction on trains 1 and 2 began in 2014 and construction on train 3 is expected in the first quarter of 2015.
Lake Charles LNG	2.0 Bcf/d	Conditional approval granted in August 2013.	Pending	Financing for the 3 trains is expected to close in early 2015.	Construction is expected to start sometime in 2015.
Freeport LNG	.4 Bcf/d (authorization for same facility for additional exports)	Conditional approval granted in November 2013; final approval granted in November 2014.	Approval granted in November 2014.	Financing on Trains 1 and 2 closed in December 2014. Financing on Train 3 expected 1st quarter of 2015.	Construction on trains 1 and 2 began in 2014 and construction on train 3 is expected in the first quarter of 2015.
Dominion Cove Point	.77 Bcf/d	Conditional approval granted September 2013.	Approval granted in September 2014.	Financing planned for the 1st quarter 2015.	Construction began in October 2014.
Cameron LNG's project	1.7 Bcf/d	Conditional approval granted on February 2014; final approval granted in September 2014.	Approval granted in July 2014.	Financing closed in August 2014.	
Jordan Cove	.8 Bcf/d	Conditional approval granted in March 2014.	Pending. FERC delayed issuing a final EIS for this project until June 2015.	Financing planned for the 1st quarter 2015.	
Carib Energy	.04 Bcf/d	Final approval granted in September 2014.	Project falls within the scope of a categorical exclusion from the preparation of an environmental impact statement or environmental assessment (EA) under NEPA. The authorization is, therefore, not conditioned on further environmental analysis or review.		
Oregon LNG	1.25 Bcf/d	Conditional approval granted in July 2014.	Pending		Construction of the facility is slated to begin in late 2015 with completion in early 2019.
Corpus Christi Liquefaction, LLC	2.1 BCF/d	Pending.	Approval granted in December 2014.	Financing is expected to close in early 2015.	

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