

WORKINGCAPITAL

SECOND EDITION 2021 | PROJECTS & INFRASTRUCTURE NEWSLETTER

When I think about transformations in the energy industry, I often think of the great inventor Thomas Edison, who was not only responsible for hundreds of important inventions but who also set the stage for a breakthrough form of energy transmission, electricity, to become a technological and economic disrupter. The Pearl Street electric generating station that he opened in New York's Financial District delivered electricity to just a few dozen customers when it launched in 1882. Still, it augured the demise of gas lighting and set the stage for an even larger energy revolution.

Nearly a century a half later, we are witnessing a similarly disruptive energy transition, this time driven by the need to decarbonize energy distribution and allow for battery capacity on an unprecedented scale. My colleagues and I at Mayer Brown are proud to be partnering with the energy industry disrupters of today in areas ranging from carbon capture and storage to battery technology and hydrogen fuel cell development, to name a few.

As Mayer Brown's newly elected global chair, I have the distinct honor of leading a global team of thought leaders who advise the most dynamic and creative companies in the energy industry. One of the pillars of our firm's global strategy is our award-winning Projects & Infrastructure group, which draws on the capabilities of our widely acclaimed

practices in Banking & Finance, Corporate & Securities, Government Transactions and Tax Transactions & Consulting (among others) to advise clients on all types of infrastructure transactions—from project development and finance through purchase and sale of infrastructure assets and businesses.

Like every practice area across our global platform, our Projects & Infrastructure team is dedicated to devising innovative solutions and offering insights that are directly applicable to our clients' businesses. My Projects & Infrastructure colleagues are an immensely gifted group of practitioners, who are constantly finding new ways to advance the industry, and they stand ready to partner with you.

I hope you will enjoy this issue of *Working Capital* as much as I have, and if there is anything at all that my colleagues and I can do to help promote your business interests and help you meet the challenges you face, please don't hesitate to call on us.

[Jon D. Van Gorp](#)
Chair



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Knowledge Hub

The Knowledge Hub is a selection of recent legal alerts, articles and thought leadership published by our Projects & Infrastructure attorneys. For the most up-to-date news and publications, visit our [Projects & Infrastructure](#) page or any one of our firm blogs.

US CUSTOMS ISSUES WRO ON SILICA-BASED PRODUCTS PRODUCED BY XINJIANG MANUFACTURER

On June 24, 2021, US Customs and Border Protection (“CBP”) issued a Withhold Release Order (“WRO”) on silica-based products made by Hoshine Silicon Industry Co., Ltd. (“Hoshine”), a company located in Xinjiang, and its subsidiaries. This WRO is based on information that CBP alleges “reasonably indicates” that Hoshine used forced labor to manufacture silica-based products. As a result, CBP personnel at all US ports of entry have been instructed to immediately begin detaining shipments that contain silica-based products made by Hoshine or materials and goods derived from or produced using those silica-based products. China is by far the world’s largest producer of silicon and silica-based products. [READ MORE](#)



ELECTRIC VEHICLE AND CHARGING STATION TAX CREDITS: ASSESSING PROPOSED CHANGES

Section 30D of the US Internal Revenue Code (“IRC”) provides business and individual taxpayers that purchase new qualified plug-in electric drive motor vehicles (“EVs”), including passenger vehicles and light trucks, with a nonrefundable tax credit. Section 30C of the IRC provides a nonrefundable investment tax credit equal to 30 percent of the cost of alternative fuel vehicle refueling property, which includes EV charging stations and hydrogen refueling stations. There are currently three primary proposals under discussion in Washington that could materially change these federal income tax credits. [READ MORE](#)



NORTH CAROLINA, A LITTLE LATE TO EAST COAST OFFSHORE WIND RACE, GOES 8 GW-BY-2040 LARGE

On June 9, 2021, North Carolina Governor Roy Cooper issued Executive Order 218 (NC EO), which targets 2.8 GW of offshore wind (OSW) by 2030 and 8 GW by 2040 and anticipates the creation of 600,000 related jobs and an annual contribution to North Carolina’s economy of \$70 billion. [READ MORE](#)

US DEPARTMENT OF INTERIOR TO CONSIDER OFFSHORE WIND IN GULF OF MEXICO

On June 8, 2021, the Department of the Interior (DOI) announced that the Bureau of Ocean Energy Management (BOEM) intends to issue a request for information (RFI) to assess interest in potential offshore wind development in the Gulf of Mexico Outer Continental Shelf. [READ MORE](#)

GOVERNORS OF NINE EAST COAST STATES SEND OFFSHORE WIND LETTER TO BIDEN ADMINISTRATION

In a letter dated June 4, 2021, the governors of Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Virginia commended the Biden administration for its recently announced commitment to developing wind energy off the US coast. [READ MORE](#)



IN ITS FIRST "ENERGY EARTHSHOT," THE US DEPARTMENT OF ENERGY LAUNCHES ITS "HYDROGEN SHOT" INITIATIVE

On June 7, 2021, US Department of Energy (DOE) Secretary Granholm announced "Hydrogen Shot," the first of several "Energy Earthshots," to reduce the cost of clean hydrogen. The Hydrogen Shot goal is to reduce the cost of clean hydrogen by 80 percent to \$1 per kilogram within one decade. The Energy Earthshots, announced at the earlier Leaders on Climate Change event hosted by the Biden administration, are intended to propel next-generation technologies in key clean energy sectors. [READ MORE](#)



CRITICAL PIPELINE CYBERSECURITY DIRECTIVE RELEASED

In the wake of the May 2021 ransomware attack on a major US oil pipeline, the Department of Homeland Security's Transportation Security Administration (TSA) has released a security directive (the "TSA Directive") to better "identify, protect against, and respond to threats to critical companies in the pipeline sector." The TSA Directive was released on May 27, 2021, and effective the next day. The Legal Update at the link below discusses what the TSA Directive requires of critical pipeline or facility owner/operators and related considerations. [READ MORE](#)

US OFFSHORE WIND GOES WEST (MAYBE)

On May 25, 2021, the Biden administration (acting through the Departments of Defense and Interior) and the State of California announced their agreement to advance areas for offshore wind off the northern and central coasts of California. This milestone is significant in many respects—not the least of which it sets the stage for including the Pacific Coast as part of the Biden administration's goal to create thousands of jobs through the deployment of 30 gigawatts (GW) of offshore wind by 2030. [READ MORE](#)



IRS RELEASES 2021 SECTION 45 PRODUCTION TAX CREDIT AMOUNTS

On May 24, 2021, the US Internal Revenue Service (IRS) released Notice 2021-32, which provides the inflation-adjustment factors and reference prices for the calculation of renewable electricity production tax credits (PTCs) under Internal Revenue Code (IRC) section 45 for calendar year 2021. [READ MORE](#)



BIDEN ADMINISTRATION APPROVES VINEYARD WIND OFFSHORE WIND PROJECT

On May 11, 2021, the Biden administration's Departments of Commerce and Interior announced the issuance of a final Record of Decision (ROD) approving the construction and operation of the Vineyard Wind project—the first large-scale, offshore wind project in the United States. [READ MORE](#)



EU GREEN DEAL: EC RELEASES ROADMAPS TOWARD AN AMBITIOUS REVISION OF REACH AND CLP

The EU Green Deal announces a zero pollution ambition for a toxic-free environment that should be achieved, among other ways, through ambitious actions against the most hazardous chemicals and enhanced engagement in innovation for the development of safe and sustainable alternatives. One of the first deliverables of this far-reaching policy program is the Chemicals Strategy for Sustainability (CSS), which involves important revisions of the existing EU chemicals legislation including the Chemicals Control Regulation (REACH) and the Classification, Labelling and Packaging Regulation (CLP). [READ MORE](#)

MA ISSUES ROUND 3 RFP FOR LONG-TERM CONTRACTS FOR ANOTHER 1,600 MW OF OFFSHORE WIND

On May 7, 2021, the Massachusetts electric distribution companies,¹ in coordination with the Massachusetts Department of Energy Resources, issued an RFP for Long-Term Contracts for Offshore Wind Energy Projects pursuant to Section 83C of Chapter 169 of the Acts of 2008, as amended by Chapter 188 of the Acts of 2016, An Act to Promote Energy Diversity, and Section 21 of Chapter 227 of the Acts of 2018, An Act to Advance Clean Energy. [READ MORE](#)



NEW MEXICAN POWER REGULATORY FRAMEWORK – DEFENSE MECHANISMS AVAILABLE TO INVESTORS

The current government launched an attack against the electricity legal framework established by its predecessor. The new framework reflects a major change in policy concerning the participation of the private sector in Mexico's electricity industry, which could endanger billions of dollars in investments, the creation of thousands of jobs and could result in the emission of thousands of additional tons of CO₂. [READ MORE](#)

NO, MEXICO IS NOT TURNING INTO VENEZUELA

Following the Mexican government's latest initiative to amend the Hydrocarbons Law, concerns about Mexico following in Venezuela's footsteps to undo the energy reform are growing. It is important to keep in mind certain key differences between Venezuela and Mexico and how each country opened its oil and gas industry to private investment. This will help us understand the process that is underway in Mexico and the likelihood of the government's success in undoing the energy reform. Spoiler alert... Mexico is not Venezuela. [READ MORE](#)

MORE 2021 POLAR VORTEX FALLOUT: SECURITIZATION BILLS, NOT SATISFYING RATING METHODOLOGIES REQUIREMENTS, UNLIKELY TO GET HIGHEST POSSIBLE RATINGS

In the aftermath of Winter Storm Uri and the market turmoil that ensued, legislation that contemplates using securitization to potentially fund related economic damages and other dislocation has been proposed in both Texas and Oklahoma; however, in many cases, the proposed legislation does not contemplate critical requirements under the applicable rating agency methodologies. The Legal Update at the link below summarizes the bills and what they lack. [READ MORE](#)

EUROPEAN COMMISSION ADOPTS EU TAXONOMY AND OTHER MEASURES TO FACILITATE SUSTAINABLE TRANSITION

On April 21, 2021, the European Commission adopted a comprehensive package of measures to help improve the flow of money toward sustainable activities across the European Union. [READ MORE](#)



DATA CENTRE INVESTING - AVOIDING THE LEGAL PITFALLS

Data centres have moved from being an “alternative” real estate asset class to the mainstream in recent years. With the advent of 5G and continued digitisation of work and home life, strong demand for data centres is expected to continue despite increases in supply. They are attractive to investors as yields are currently higher than for more traditional real estate assets; for example, the yields across Asian markets are currently 50-150bps higher for data centres than prime modern logistics assets. Despite being a mainstream asset, data centres are a different beast to the traditional office, retail, residential and logistics asset classes and so present different risks and challenges. This article guides readers around a few of the potential legal pitfalls for those intending to acquire ownership of data centre real estate. [READ MORE](#)

ANOTHER ONE BITES THE DUST: TRUMP BULK POWER PROHIBITION ORDER REVOKED; DEPARTMENT OF ENERGY OPENS NEW BULK POWER EQUIPMENT PROCEEDING

The Biden administration has suspended an executive order and revoked a related order, both issued by the Trump administration, that limited some installation and use of foreign-produced transmission equipment on portions of the US power grid. [READ MORE](#)



TEXAS BILLS WOULD BURDEN RENEWABLE GEN

The Texas House of Representatives and Senate are considering three similar, but not identical, legislative drafts that could impose substantial grid charges directly on renewable generation businesses. [READ MORE](#)



Mayer Brown was co-author of the TRB Airport Cooperative Research Program's report: [*Evaluating and Implementing Airport Privatization and Public-Private Partnerships*](#). The report is produced in collaboration with National Academies of Sciences, Engineering, and Medicine; Transportation Research Board; Airport Cooperative Research Program; Caitlin Ghoshal Louis Wolinetz, and WSP. This guidebook is aimed towards the successful implementation of airport privatization. Some of the issues addressed within this guidebook include:

- Assessing preparedness to utilize P3s;
 - Considerations for selecting a privatization model;
 - Best practices for the solicitation, engagement, assessment and selection of private partner; and
 - Best practices for the implementation and oversight of privatization and P3s with key stakeholder engagement.
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Blogs



[Energy Forward](#) provides the latest updates and analysis on energy industry developments around the world. The Energy Forward blog covers a wide range of the energy industry, including oil and gas exploration and production; pipeline transportation; oil and gas refining, processing and marketing; LNG liquefaction, regasification and marketing. Energy Forward will also address the energy transition from fossil fuels to a sustainable energy system with renewable, thermal and alternative power generation. The topics will relate to energy policy, project development, technology innovation, risk management, finance, investment, dispute resolution and others.



[Eye on ESG](#) is Mayer Brown's Environmental, Social and Governance (ESG) blog designed to provide practical guidance to global businesses and clients amid the important and growing impact of ESG issues on their institutions and business, as well as the latest updates on new ESG-related developments.



[Tax Equity Times](#) is Mayer Brown's blog that addresses issues at the intersection of US tax and energy policy. Its primary focus is the US law regarding transactions to monetize the tax credits and accelerated depreciation on qualifying renewable energy projects. The Tax Equity Times also addresses certain tangential topics, such as partnership taxation, equipment leasing, the US Treasury's cash grant program and state tax incentives. Those working with tax equity investors, developers and utilities will find posts of interest to them.

Writing Cheques We Can't Cash?

CRITICAL MINERALS AND THE ENERGY TRANSITION

by Meredith Campanale, Ian Coles, Kirsti Massie and Rachel Speight

The energy transition is gathering momentum, encouraged by countries and companies alike. Over 170 countries have developed targets in relation to renewable energy, and many have included them as part of their Nationally Determined Contributions under the Paris Agreement.¹ The EU is considering regulations that would require member states to achieve net zero greenhouse gas emissions by 2050.² And companies formerly focused exclusively on carbon-intensive industries, such as Total, Equinor and BP, have stated their aims to become net-zero by 2050 (or sooner). The UN Climate Change Conference (COP26), to be held in the UK in November of this year, will put a spotlight on the energy transition and likely lead to further initiatives.

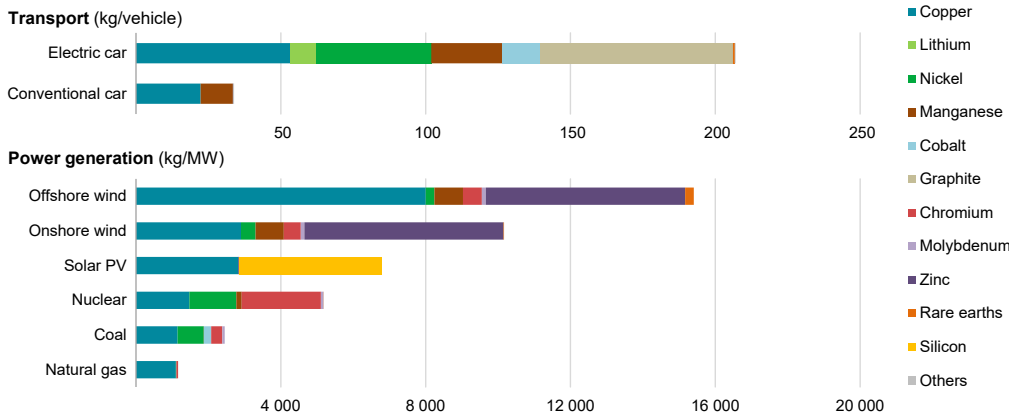
But one aspect of the commitment to fight climate change and reduce carbon emissions that has attracted less attention to date is the extent of the dependence of many parts of that transition on critical minerals. A new report from the the International Energy Agency (IEA)³, released in early May, explains in clear terms the considerable extent to which the energy transition relies on critical minerals⁴ and

the supply issues this poses. This aspect of the energy transition urgently needs examination by policymakers and corporate decision makers, so that steps can be taken to ensure that the commitments being made as part of the energy transition can actually be realised.

The Building Blocks of the Energy Transition

It is no surprise that minerals are some of the building blocks of clean energy technologies, used in everything from batteries to solar panels, and from wind turbines to hydrogen electrolyzers. What is perhaps surprising is the degree to which mineral inputs for clean energy technologies vary from those for conventional technologies. The IEA notes that clean energy technologies typically are more mineral-intensive than fossil-fuel based technologies—for example, a typical electric car requires six times the mineral inputs of a conventional car, and an onshore wind plant requires nine times more mineral resources than a gas-fired power plant.⁵ Even between clean energy technologies there are significant differences in mineral inputs, as the table below illustrates.

Minerals used in selected clean energy technologies



Notes: kg = kilogramme; MW = megawatt. Steel and aluminium not included. See Chapter 1 and Annex of the source report for details on the assumptions and methodologies

Source: IEA (2021) *The Role of Critical Minerals in Clean Energy Transitions*, <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions>. All rights reserved.

A fundamental issue, however, is the extent to which many of the mineral inputs for clean energy technologies are critical minerals. For example, as illustrated in the table below, solar panels use a high amount of copper and aluminium. Wind turbines require significant quantities of copper, zinc and (depending on the technology) rare earth

minerals, as well as moderate amounts of nickel, chromium and aluminium. Hydrogen electrolyzers require high amounts of nickel and platinum group metals. Batteries require high amounts of lithium and a number of other metals (again, depending on the technology).

Critical mineral needs for clean energy technologies

	Copper	Cobalt	Nickel	Lithium	REEs	Chromium	Zinc	PGMs	Aluminium
Solar PV	High	Low	Low	Low	Low	Low	Low	Low	High
Wind	High	Low	Moderate	Low	High	Moderate	High	Low	Moderate
Hydro	Moderate	Low	Low	Low	Low	Moderate	Moderate	Low	Moderate
CSP	Moderate	Low	Moderate	Low	Low	High	Moderate	Low	High
Bioenergy	High	Low	Low	Low	Low	Low	Moderate	Low	Moderate
Geothermal	Low	Low	High	Low	Low	High	Low	Low	Low
Nuclear	Moderate	Low	Moderate	Low	Low	Moderate	Low	Low	Low
Electricity networks	High	Low	Low	Low	Low	Low	Low	Low	High
EVs and battery storage	High	High	High	High	High	Low	Low	Low	High
Hydrogen	Low	Low	High	Low	Moderate	Low	Low	High	Moderate

Relative importance of minerals for a particular clean energy technology: High: ● Moderate: ● Low: ●

Notes: Shading indicates the relative importance of minerals for a particular clean energy technology, which are discussed in their respective sections in the source report. CSP = concentrating solar power; REEs = rare earth elements; PGM = platinum group metals. In the source report, aluminium demand is assessed for electricity networks only and is not included in the aggregate demand projections.

Source: IEA (2021) *The Role of Critical Minerals in Clean Energy Transitions*, <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions>. All rights reserved.

But Can Supply Keep Up?

Renewables will be a key pillar of the energy transition, and the outlook for growth in the sector is strong. The International Renewable Energy Agency notes that in order to achieve the 1.5°C Paris Agreement goal for global warming, renewables, particularly wind and solar, will need to supply 90% of total electricity by 2050, up from 25% in 2018.⁶ The industry is growing significantly. In 2020, renewable capacity additions increased by more than 45% from 2019, and the IEA expects similar annual additions in absolute terms in both 2021 and 2022.⁷ As a share of the energy mix, renewables are expected to account for 90% of total global power capacity increases in both 2021 and 2022.⁸ These increases are driven mostly by wind and solar capacity additions.

This strong growth in clean energy technologies will fuel parallel growth in demand for the critical minerals needed to sustain it. Just how great that demand will be depends upon the speed of the energy transition.⁹ The IEA reports

that even if existing policy frameworks and today’s stated commitments are simply maintained, total demand for such minerals from clean energy technologies will double by 2040. However, if the energy transition gathers pace, and heads towards a scenario where the Paris Agreement goals on climate change are realised, total mineral demand from clean energy technologies will quadruple by 2040. Hitting net zero globally by 2050 would require six times more mineral inputs in 2040. In these scenarios, lithium accounts for the fastest growth in demand, but graphite, cobalt, nickel and copper demand also increases significantly.

What, then, about supply? Even with policy intervention and careful planning, supply will take time to respond. The IEA notes that it takes on average over 16 years to progress mining projects from discovery to first production, and so any market response is likely to lag demand.¹⁰ Currently, focus is on increasing supply to meet demand as opposed to any management of the supply/demand dynamic through re-use, repurposing or recycling. The benefits (both monetary and environmental) of the “circular economy” remain relatively

untapped. While some work has been done on recycling, repurposing or reusing certain renewables materials (for example, by the World Economic Forum's Global Battery Alliance), more needs to be done in this respect. Exacerbating the supply side concerns is the fact that reserves, production and processing of critical minerals are significantly concentrated in certain countries. Cobalt, used in lithium-ion batteries, is an example. In 2020, the Democratic Republic of Congo was the world's leading source of mined cobalt, supplying approximately 70% of world cobalt mine production, and China was the world's leading producer of refined cobalt (most of which was imported from the Democratic Republic of Congo).¹¹ The countries that are leaders in the energy transition are generally net importers of the minerals necessary to effect it.¹² For both industrial and strategic reasons, some countries have designated critical minerals issues a matter of national security.¹³ Robust supply chains have never been more important.

The supply and demand dynamic will—absent changes such as policy interventions, significant technological advances in efficiency of materials, advances in recycling/repurposing/reuse, or all of the above—mean that there will be speed bumps on the energy transition road, leading to increased costs of components and ultimately of renewable energy. To look at one example: Copper prices on 10 May hit an all-time peak of \$10,747.50 per tonne, with copper recently trading above \$10,000 per tonne for the first time in a decade.¹⁴

Analysts at Goldman Sachs and Trafigura believe that by 2025 prices could hit \$15,000 per tonne or higher.¹⁵ As noted above, copper plays a significant role in electric vehicles, solar panels, transmission lines and wind turbines, all key instruments of the energy transition. The CEO of Glencore has noted that the mining industry would need to produce an extra 1 million tonnes of copper per year to meet many net zero 2050 goals, but the investments in supply required would be in riskier jurisdictions or more challenging deposits, which would require higher prices to encourage such investments.¹⁶ Although there are a number of dynamics at play here, what the copper example illustrates is the extent to which the adoption of clean technologies demanding critical minerals at scale could be delayed by supply-side issues.

The Challenge

Outlining the problem is easy, but solutions are harder to come by. It is clear that governments have a pivotal role to play through policies and incentives.¹⁷ However, mining companies as well as companies that are involved in or customers of the clean energy supply chain would do well to think about these matters and factor them into business planning decisions. Societally, investments in solutions to mineral scarcity issues will need to be made in tandem with investments in the energy transition. This is vital to ensure that the commitments to the energy transition are ones on which countries and companies can deliver.



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ENDNOTES

- 1 International Renewable Energy Agency, *World Energy Transitions Outlook: 1.5°C Pathway* (Preview), March 2021, p. 4, available at https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2021/March/IRENA_World_Energy_Transitions_Outlook_2021.pdf (“IRENA Report”)
- 2 Such as the EU Climate Law Regulation currently under review, which includes a legal objective for the bloc to achieve net zero greenhouse gas emissions by 2050, Regulation of the European Parliament and of the Council on establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law), COM/2020/563 final, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020PC0563>
- 3 International Energy Agency, *The Role of Critical Minerals in Clean Energy Transitions*, May 2021, available at <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions> (“IEA Report”)
- 4 The IEA Report has an expansive definition of critical minerals insofar as they relate to clean energy technologies. These include chromium, copper, major battery metals (lithium, nickel, cobalt, manganese and graphite), molybdenum, platinum group metals, zinc, rare earth elements and others. Annex A of the IEA Report contains a complete list.
- 5 IEA Report, p. 5.
- 6 IRENA Report, p. 18.
- 7 International Energy Agency, *Renewable Energy Market Update 2021: Outlook for 2021 and 2022*, May 2021, p.4, available at <https://www.iea.org/reports/renewable-energy-market-update-2021>
- 8 *Ibid.*
- 9 IEA Report, pp. 8, 50.
- 10 IEA Report, p. 12.
- 11 U.S. Geological Survey, *Mineral commodity summaries 2021: U.S. Geological Survey, 2021*, p. 51, available at <https://doi.org/10.3133/mcs2021>
- 12 IEA Report, p. 29.
- 13 For example, a United States Department of Commerce report states, “The assured supply of critical minerals and the resiliency of their supply chains are essential to the economic prosperity and national defense of the United States. The United States is heavily dependent on foreign sources of critical minerals and on foreign supply chains resulting in the potential for strategic vulnerabilities to both our economy and military. Mitigating these risks is important and consistent with our country’s National Security Strategy and National Defense Strategy to promote American prosperity and to preserve peace through strength.” The report goes on to note that imports are more than 50% of annual consumption for 31 of the 35 minerals designated as critical by the United States Department of the Interior, and the United States relies wholly on imports for 14 of these critical minerals. A *Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals*, June 4, 2019, p. 3, available at https://www.commerce.gov/sites/default/files/2020-01/Critical_Minerals_Strategy_Final.pdf Access to critical minerals also features in the UK Government’s assessment of the national security and international strategic context to 2030, which notes that there will be increased competition for scarce natural resources, and countries controlling supplies of critical minerals may use them as leverage with respect to other political-economic issues. The UK Government is exploring options for domestic extraction and processing of critical minerals, as well as looking at ways to recycle, reuse and/or repurpose such critical minerals, as a way of reducing dependence on externally-controlled supplies. HM Government, *Global Britain in a Competitive Age: The Integrated Review of Security, Defence, Development and Foreign Policy*, March 2021, available at <https://www.gov.uk/government/publications/global-britain-in-a-competitive-age-the-integrated-review-of-security-defence-development-and-foreign-policy>
- 14 “METALS-Copper turns higher as strike risk offsets weak China data”, Reuters, 17 May 2021; “Copper hits 10-year high above \$10,000 a tonne”, *Financial Times*, 29 April 2021.
- 15 “Copper must rally 50% for supply to meet demand, Glencore chief says,” *Financial Times*, 6 May 2021.
- 16 *Ibid.*
- 17 See, for example, the recommendations in the IEA Report, p. 18.

In Conversation

Nadav Klugman speaks with Energy Taxation partner Greg Matlock and energy-focused Corporate & Securities partner Phil Lau on carbon capture use and sequestration (“CCUS”) in the United States.

Banking & Finance partner Nadav Klugman sat down, virtually, with Greg Matlock and Phil Lau to talk about their views on CCUS and related future market opportunities. Greg is a partner in the Houston office and serves as the global co-leader of the Energy Taxation practice, and he advises clients on all forms of energy transactions from a tax perspective. Phil is a partner in the Houston office and a member of the global Oil & Gas and Corporate & Securities practices, and he advises clients on midstream and downstream energy transactions.

NADAV: Greg and Phil, thanks for joining me. “Energy transition” is a phrase that we are hearing a lot lately. Can you give us a little background on what it means?

GREG: Thanks, Nadav. What started as an energy sector convergence (where power and utility companies were looking to vertically integrate by acquiring natural gas assets, and the main energy sectors were cross-investing) has evolved into what the market refers to as an “energy transition.” Reflecting societal changes (including the developing environmental, social and governance focus), capital preferences and emerging technologies, energy companies of all types are evaluating how they can operate in a cleaner and more efficient manner. The global economy is shifting to more carbon neutral practices, which may range from embracing more traditional renewable sources of energy, such as wind and solar on the one hand, to exploring project structuring alternatives in the energy transition space. These practices provide an attractive

and, at least in the short term, potentially more accessible “middle ground” for traditional hydrocarbon-based companies in that they don’t require a full pivot to renewable energy sources but allow companies to use their existing asset base and operational competencies in more carbon-friendly commercial practices such as CCUS. Stated differently, depending on structure, many energy transition projects may look and feel like traditional hydrocarbon-based projects, albeit with a twist.

NADAV: Interesting. Phil, what types of projects are natural resource companies evaluating in this “energy transition” space?

“energy companies of all types are evaluating how they can operate in a cleaner and more efficient manner”.

– Greg Matlock

PHIL: Traditional natural resource companies (along with traditional power companies and renewable energy companies) are evaluating, and in many cases, investing, in “energy transition” assets and projects, which include CCUS, renewable natural gas, biofuels and biomass, waste-to-heat assets, both blue and green hydrogen, battery-related technologies, geothermal and water-related projects. The market recognizes that the energy landscape is clearly evolving and that all companies in the energy value chain will need to respond to the changing imperatives that Greg previously mentioned. For companies that are able to incorporate these new



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imperatives into their business plans going forward, great opportunities exist, particularly for traditional, fossil fuel-based companies that are venturing into alternative sources of energy or otherwise analyzing how to operate their existing assets in a more carbon neutral manner.

NADAV: Specifically related to CCUS projects in the United States, could you briefly describe what these projects entail?

PHIL: CCUS projects, at their core, involve the deployment of technologies to capture carbon oxide emissions from electricity generation or industrial processes. Specifically, CCUS involves capturing carbon oxides that are emitted from an industrial source or directly from the ambient air and either disposing or using those oxides in a “qualified” manner—in other words, in a manner that qualifies for the applicable tax credits under US tax laws.

NADAV: What is driving the interest in CCUS projects in the United States?

GREG: Continued emphasis on climate change and energy transition (including the environmental, social and governance focus) is expected to benefit CCUS projects, with traditional natural resource-based companies (including upstream, midstream and services companies) being uniquely positioned to capitalize on the emerging market. To aid in the development of CCUS projects, Section 45Q of the Internal Revenue Code provides for a tax credit for the capture and sequestration of qualified carbon oxide, with its being “qualified” dependent on its source and use.

NADAV: Greg, you mentioned the Section 45Q tax credit that may apply to CCUS projects. Could you provide some additional detail on qualification for the credit?

GREG: Absolutely. Keeping in mind that the rules are slightly different for transactions on or after February 9, 2018, for these newer projects, qualified carbon oxide must be captured from an industrial source or directly from the air using carbon capture equipment that is placed in service at a qualified facility. It also must be either (a) disposed of in “secure geological storage” (and not used in an enhanced oil or natural gas recovery project), (b) used as a tertiary injectant in a qualified enhanced oil or natural gas recovery project and disposed of in secure geological storage or (c) “utilized” in certain approved commercial or chemical applications. That definition is loaded with defined terms that would require a full analysis, but that definition generally encompasses what actions the credit is aimed at.

NADAV: Thanks, Greg. Is it fair to say that there are a number of requirements that would need to be met for a company or taxpayer to qualify for the tax credit?

GREG: That is certainly fair. To qualify for the Section 45Q tax credit (which has a 12-year claim period, at least for newer projects), a number of requirements would need to be met, including, but not limited to, annual carbon capture threshold requirements, placed-in-service and beginning-of-construction requirements and certain others. It’s important to note as well, Nadav, that the amount of the Section 45Q tax credit varies by the use of the captured carbon oxides. Finally, there are other important rules, such as the recapture rule for leaked carbon oxides and the need for both the capture and use to be within the United States (including its territories).

NADAV: Thanks, Greg. Phil, can you describe some of the phases of a CCUS project or what such a project entails?

PHIL: Yes. A CCUS project that starts from scratch often will have four discrete phases: (1) new venture formation and governance; (2) financing (construction finance, green bonds, traditional bank financing, private equity, etc.); (3) drafting and execution of commercial contracts and agreements (from the asset-level to the investor-level); and (4) tax credit monetization (through tax equity structures).

“projects can be structured in a wide variety of ways—from large, integrated projects to bespoke, a la carte projects.”

– Phil Lau

NADAV: So it sounds like these projects are highly integrated projects with a number of various points in which an investor or a lender could participate. Is that fair?

PHIL: That is correct, Nadav. CCUS projects generally involve multiple stakeholders. A wide variety of capital providers, sponsors, asset owners, offtake parties, contractors and operators may be involved in a CCUS project. Such projects can be structured in a wide variety of ways—from large, integrated projects with a unified ownership structure to bespoke, à la carte projects with discrete, separable components within the value chain—each presenting different economic opportunities for the various stakeholders.

NADAV: As far as contractual implementation, these types of projects appear to need solid coordination among the various contractual relationships.

PHIL: That's absolutely correct, and critical, Nadav. At a high level, these projects need to be structured much like a typical project financing. Some of the contractual considerations in an integrated CCUS project include, but are not limited to, the following: (a) the various commercial contracts maintaining Section 45Q compliance throughout the value chain, with the possibility of cross-liability issues in multi-party contracting arrangements if the expected tax credits are not obtained and eligibility is not maintained; (b) contract sequencing and coordinating remedies among all project contracts, including conforming treatment of certain contractual issues such as *force majeure*,

curtailment events and primary and renewal terms; (c) determining which parties need to consent to contractual assignments at all points across the project chain; (d) adoption of uniform dispute resolution procedures and remedies for breach; (e) narrow termination rights across agreements, with step-in rights to cure defaults; (f) dealing with changes in law, including Section 45Q; and (g) public announcements regarding the project. Finally, there are significant land, mineral interest and usage issues that need to be considered, analyzed and monitored.

NADAV: Thank you both for taking some time to discuss CCUS!

Carbon Capture Use and Sequestration Boot Camp

In April 2021, Mayer Brown lawyers across practice areas, industry groups and offices hosted a virtual “Boot Camp” with over 300 attendees on a broad range of topics relating to carbon capture, use and sequestration (“CCUS”) in the United States as part of Mayer Brown’s focus on the United States’ energy transition from traditional natural resources (coal, oil, natural gas, etc.) to low-carbon and renewable sources of energy (wind, solar, etc.) (the “Energy Transition”).

CCUS has been the subject of increased focus from the industrial sector, natural resource companies, capital providers and governmental entities. While CCUS technology is not new, this increased focus and clarity around governmental incentives has resulted in new participants and structures coming to market and many new opportunities to combine expertise across sectors.

This article provides highlights from these Boot Camp sessions: CCUS opportunities for multiple stakeholders; traditional and alternative financing and attracting capital; Section 45Q tax credits and tax equity financing; equipment acquisition and facility access arrangements; transportation of CO₂ from the emissions source to its end use; and CO₂ storage land rights and other considerations such as enhanced oil recovery (“EOR”).

CCUS Opportunities for Multiple Stakeholders

PRESENTED BY: NADAV KLUGMAN, ERIC POGUE AND LARRY MURPHY

Carbon capture technology captures carbon oxides (CO and CO₂) from electricity generation or industrial process emissions or directly from ambient air. Carbon use and sequestration refers to the disposal of such carbon oxides in secure geological storage or the use of such carbon oxides

as an injectant in oil or natural gas wells for enhanced recovery or in certain other chemical or commercial applications such as fertilizer or petrochemicals.

CCUS projects can be structured in a wide variety of ways, from large, integrated projects to bespoke projects with discrete, separable components within the value chain, all presenting opportunities for various stakeholders. A wide variety of banks, alternative finance providers, project developers and sponsors, tax equity investors and other strategic market participants may be involved in CCUS projects. These stakeholders can have different interests along the CCUS value chain—from the emissions source to the carbon capture facility to the transportation of the CO₂ to its storage or use. A number of recently announced CCUS ventures include multiple stakeholders and unique arrangements and agreements among such stakeholders. CCUS projects can bring cash streams such as value-add uses (such as EOR) and tax credits and non-cash benefits (such as fuel that meets lower carbon fuel standards).

Traditional and Alternative Financing and Attracting Capital

PRESENTED BY: NADAV KLUGMAN, LARRY MURPHY, EDDIE BEST AND DAVID BAKST

CCUS may be financed through traditional project financing structures and exhibit the key features associated with such structures. These include that the project is legally and economically self-contained and separate from the sponsors and the sole recourse for lenders is against the project’s cash flow and assets. These structures often have high leverage, between 70-90 percent of the total project cost, and last for the economic life of the project. Financing can come from banks and other financial institutions, bond markets, multilateral organizations, bilateral agencies and host governments.

“Green” projects, including CCUS projects, can be funded with the use of proceeds from the issuance of a green bond. Green bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or re-finance new and/or existing eligible green projects, which are projects meant to contribute to environmental objectives such as climate change mitigation and adaptation. Other types of green capital include green preferred and green convertible debt. Similarly, social bonds are an instrument where its proceeds are exclusively applied to finance or re-finance social projects, which are projects that directly aim to achieve positive social outcomes. The interest in environmental social governance investing, including green and social bonds, is rising.

Section 45Q Tax Credits and Tax Equity Financing

PRESENTED BY: DAN KIELY, GEORGE HAINES, ERIC POGUE AND GREG MATLOCK

Section 45Q of the tax code provides for a tax credit equal to a specified dollar amount per metric ton of carbon oxide captured and sequestered in the United States. The dollar value of the credit depends on the source of the captured carbon oxide, the use of such carbon oxide after capture and the taxable year in which the credit is claimed.

Many CCUS sponsors are not in a position to use Section 45Q tax credits, but it is inefficient to develop a project and not take advantage of these credits. As a result, sponsors may elect to bring in third-party tax equity investors who are better positioned to use the tax credits. There is a developed tax equity market for US renewable energy projects for production tax credits and investment tax credits. The Section 45Q tax credit is analogous to the production tax credit, and, therefore, CCUS transaction structures are expected to resemble the established structures that have been used for onshore wind tax equity financing.

For new CCUS projects to qualify for the Section 45Q credit, qualified carbon oxide must be captured from industrial sources that would otherwise be released into the atmosphere or directly from the air by using carbon capture equipment that is originally placed in service at a qualified facility on or after February 9, 2018, over a 12-year period that begins on the date the equipment was originally placed in service. The carbon oxide must also be either disposed of in secure geological storage, used as a tertiary injectant in a qualified EOR project and disposed of in secure geological

storage, or used in certain other approved applications. The credit can be claimed by the taxpayer who owns the carbon capture equipment and who physically or contractually ensures the disposal or use of such carbon.

Unlike similar tax credits used for renewable energy projects, the amount of the credit (per metric ton of carbon oxide) increases from 2020 to 2026 and thereafter is inflation-adjusted. The credit amount depends on the use and is between \$31.77 (in 2020) and \$50 (in 2026) for non-EOR geological storage and between \$20.22 (in 2020) and \$35 (in 2026) for EOR and other qualified uses.

Equipment Acquisition and Facility Access Arrangements; Transportation of CO₂ from the Emissions Source to Its End Use

PRESENTED BY: DALE SMITH AND PHIL LAU

While the scope and terms of contracts will be specific to a project, CCUS contracts must be structured to ensure 45Q compliance throughout the value chain as cross-liability issues may exist in multi-party contracting arrangements if the expected tax credits are not obtained and eligibility is not maintained.

With respect to the emissions and carbon capture aspects of the CCUS value chain, project documents may include a construction contract for the capture facilities, a shared facilities agreement that defines the division of responsibility and liability between the emitter and operator of the carbon capture assets, an interconnection agreement that governs the physical connection between the emitting facilities and the carbon capture facilities, a CO₂ offtake agreement that governs the commercial arrangements around CO₂ takeaway and a services agreement that governs any treatment of the CO₂ to achieve pipeline-quality CO₂. These may take the form of separate contracts and can be combined when it is more efficient to do so.

With respect to CO₂ transportation, pipelines are often the most efficient choice; however, rail, truck and other vessels could also be viable alternatives. In each case, a transportation services agreement is needed to define the relationship between the transporter and the other parties in the CCUS value chain. CO₂ pipelines have been around for many years for the food and beverage industries, and further development has occurred to support EOR with CO₂ sourced from naturally occurring domes or from natural gas processing

co-located in producing basins. Although there are many CO₂ pipelines in the United States, they are not currently interconnected, and CO₂ transportation is not currently regulated, other than for safety.

CCUS projects that need to develop new CO₂ pipelines will need to secure pipeline rights of way and manage construction and permitting for such pipelines. Projects that will use an existing pipeline may require additional construction and modifications to the pipeline, as well as permitting, for any change of service and should confirm that the existing line rights allow for the transportation of CO₂.

CO₂ Storage Land Rights

**PRESENTED BY: CARL VON MERZ AND
COURTNEY BELOIN**

The United States has among the largest known CO₂ geologic storage capacities in the world, likely adequate to store hundreds of years of emissions, and the US Department of Energy is facilitating further rollout by developing the next set of geological storage complexes under the Carbon Storage Assurance Facility Enterprise initiative. Property rights for purposes of storage or EOR are important and are governed on a state-by-state basis. Of particular note is the

fact that in most states, ownership of the mineral rights, which provides for the right to extract minerals (including oil and gas) from the land, does not include the right to the pore space, which is the geological space containing the minerals. The right to use the pore space is necessary to store CO₂, meaning EOR may require obtaining rights from both the surface owners for the pore space and the mineral owners for the extraction of oil and gas.

Concluding Thoughts

CCUS is only one aspect of the Energy Transition, which will require combining expertise across sectors to reimagine carbon-based activities to address climate change. US-based oil and gas activity has an enormous carbon footprint, and innovative solutions and partnerships will be required to meet the reduced emission levels set by the Paris Agreement on climate change while adding value to existing industries.

Mayer Brown is committed to partnering with clients as part of the Energy Transition and working to implement innovative structures and solutions to address these issues. Readers who are interested in learning more about CCUS or other opportunities in the Energy Transition are encouraged to contact any of our Mayer Brown presenters.

In Conversation

Rob Goldberg speaks with project finance partner John Tormey on the impacts of Texas Storm Uri on the financing of renewable energy projects in Texas.

Rob Goldberg, co-head of Mayer Brown's Renewable Energy group, recently spoke with John Tormey, a project finance partner who joined the firm in 2020. John is on Mayer Brown's Projects & Infrastructure industry team, which, among other things, works with lenders, investors, sponsors, developers and hedge providers on project finance transactions for wind and solar and solar-plus-storage projects in Texas involving various types of hedge or hedge-like swap arrangements. Rob and John talked about the impacts of Texas Storm Uri in February of this year on the financing of renewable energy projects located in Texas.

ROB: Let's start with what happened in the ERCOT power market in February, during the week of Texas Storm Uri.

JOHN: On Wednesday, February 10, a cold front moved into Texas. With this came precipitation, which fell the following day as sleet and freezing rain across northwest Texas. Winter Weather Advisories were issued the next morning and were expanded later that day. By Sunday, the entire state was under a Winter Storm Warning. As ice, sleet and snow accumulated, extreme cold temperatures persisted through Wednesday, when a second winter storm hit Texas, dropping additional ice, sleet, snow and freezing rain. By Friday morning, February 19, when the last Hard Freeze Warning was issued, the state of Texas had experienced record-breaking snow and ice, along with record breaking low temperatures across the state. At the worst point of the storm, over 48% (about 52,000 MW) of the generating capacity across ERCOT was offline.

ROB: How did that generally impact renewable energy generators?

JOHN: While natural gas production and natural gas (and other fossil) energy generation plants all failed at significant rates, wind and solar energy generators were also adversely impacted by the storm and freezing temperatures. Wind (and, to a lesser extent, solar) energy generators suffered icing issues, as well as other system issues such as freezing substations.

ROB: Can you walk us through the mechanics of an ERCOT hedge and explain why those trades went upside down for many renewable energy generators that week?

"At the worst point of the storm, over 48% (about 52,000 MW) of the generating capacity across ERCOT was offline."

– John Tormey

JOHN: At its most basic level, an ERCOT hedge requires that the hedge provider make a fixed payment based on a fixed price and hedged volumes that are set forth in the hedge. These hedged volumes are determined when the hedge is executed. ERCOT hedges require that these hedged volumes of energy be "delivered" to the delivery point (most often, one of the ERCOT Hubs); this delivery is effectuated customarily by the parties to the hedge scheduling an "energy trade" with ERCOT pursuant to the ERCOT



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Nodal Protocols. The energy trade is settled by ERCOT, with ERCOT charging the project company an amount equal to the hedged volumes multiplied by the applicable Hub market price and paying a like amount to the hedge provider. Ordinarily, the project company expects to offset the amount ERCOT charges it by generating energy and selling that energy at its interconnection point. Due to the storm, however, many projects were unable to do so. As power prices in ERCOT approached and hit \$9,000/MWh, many renewable energy projects were being charged \$9,000/MWh for each hedged MWh by ERCOT to settle the energy trade, but were unable to offset that charge through its own energy production.

“Tax equity investors are requiring modifications to address the asymmetric risk that exists in fixed volume hedges.”

– John Tormey

ROB: There was no “force majeure” exception? Haven’t project owners asserted force majeure or similar defences?

JOHN: Unable to run and with energy prices hitting \$9,000/MWh, projects were faced with the prospect of either meeting very large collateral calls by ERCOT and/or their respective QSEs in order to schedule the energy trade or asserting force majeure as the cause of their inability to run and not scheduling the hedged volumes. Although ERCOT hedges do include force majeure provisions, projects that have taken the second option have to date not been successful in asserting force majeure claims in the courts.

ROB: There has been widespread litigation and a number of bankruptcy filings involving operating projects with fixed hedges that were impacted by the storm. What developments and opportunities do you see?

JOHN: We already are seeing some opportunities for parties to acquire projects that were adversely impacted by the storm. I would expect back-leverage lenders to be taking a harder look at the risk profile of hedged projects and the pricing of back-leverage debt, in addition to requests for cure rights under secured hedges.

ROB: Let’s talk about impacts of the storm on potential new projects. Are you seeing Texas renewable energy project sponsors push forward on deals with a fixed hedge arrangement, and are tax equity and lenders willing to finance them?

JOHN: Absolutely. Projects that already were in the pipeline slowed down a bit but appear to be closing or on their way to closing.

ROB: Specifically, what are you seeing in terms of changes on these new deals either to the terms of the hedge itself or to financing terms relating to the hedge that are being suggested or required by tax equity or lenders? And what else would you suggest tax equity or the lenders consider in terms of risk mitigation on these structures?

JOHN: Tax equity investors are requiring modifications to address the asymmetric risk that exists in fixed volume hedges. These changes range from downsizing the volumes and capping the downside (by, for example, limiting the delivery obligation under the hedge when prices exceed certain amounts) to limiting the traditional collateral package so that sponsors provide guarantees or letters of credit instead of an all assets lien package. Tax equity investors, in particular, appear to have moved quickly to address the asymmetric risks in fixed volume hedges and I would not be surprised if back-leverage lenders did the same.

Projects & Infrastructure Past Events

Mayer Brown's Projects & Infrastructure team present at various industry events and webinars throughout the year. Snapshots for each of their sessions along with key points of discussion can be found below.



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JUNE 9

Eric Pogue leads discussion on the Future of Renewable Energy and the Energy Transition at IIF Americas Conference

On June 9, 2021, New York Projects partner Eric Pogue hosted a fireside chat with Sarah Wright, Founder and Managing Partner of Hull Street Energy, at Inframation's Infrastructure Investor Forum: Americas. The topic of Eric and Sarah's discussion was the future of renewable energy development, financing and investment as it relates to the energy transition. A few highlights of Sarah and Eric's wide-ranging discussion included:

1. A look into the drivers behind the energy transition to clean power – such as consumer preferences, corporate initiatives, ESG investors, states and RPS standards and federal incentives;
2. A discussion related to Texas Storm Uri and California power market disruptions – including how those events may shape renewable energy development and finance trends; and
3. Highlighting the challenges that lie ahead for achieving real gains toward the goal of decarbonization of the U.S.



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JUNE 9

Marina Besignano Moderates Panel Discussion on Unlocking Investment in Evolving Markets at IIF Americas Conference

On June 9, 2021, New York Fund Formation partner Marina Besignano moderated a panel with Ed Pallesen, Managing Director at HIG Capital; Caleb Powers, Principal at Ember Infrastructure Management LP; Chris Tehranian, Senior Director at First Sentier Investors and Aaron Vale, Partner at CBRE Caledon Capital Management at Inframation's Infrastructure Investor Forum: Americas. The topic of the panel discussion was the challenges faced by investment fund managers in raising and operating infrastructure funds in today's climate. A few highlights of Marina's panel discussion included:

1. The new investment strategies that might emerge for managers of infrastructure funds in the coming years;
2. The strategies that managers of infrastructure funds are employing now to obtain assets;
3. The challenges for first-time managers of infrastructure funds in today's environment; and
4. Trends in infrastructure fund structures: large comingled funds vs. SMAs and bespoke transaction structures.



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MAY 12

Stephanie Wagner Discusses Financing Practices and Options at Proximo's Financing America's Infrastructure Conference

On May 12, 2021, Stephanie Wagner, a partner in the Government practice and Projects and Infrastructure group, participated in the panel *Practice Makes Perfect: Best Financing Practices and Options* with fellow panelists Steve DeWitt, Senior Vice President Business Development, of ACS Infrastructure; Christina Kim, Senior Vice President of Prudential Private Capital; Ahmed Maqsood, Vice President of Infrastructure Debt, Allianz Global Advisors and moderated by Vivien de Gunzburg, President and Managing Partner of Ceres Infrastructure Asset Management at Proximo's Financing America's Infrastructure Conference. The panel discussion focused on sources of capital for infrastructure projects and when private financing can be beneficial. A few highlights from Stephanie's panel discussion included:

1. Sources of capital available to finance public infrastructure projects and their future relevance, including the role of US Department of Transportation surface transportation private activity bonds and the need to increase the current \$15 billion cap (which has been fully allocated), the possibility of extending private activity bond authority to social buildings and the expansion of federal loan programs like TIFIA and RRIF;
2. Current volume and types of public infrastructure projects coming to market and how the private sector can facilitate discussion with public agencies to increase the use of private financing and balancing of risk-sharing through public-private partnerships for appropriate projects; and
3. The amount of private financing ready to be deployed on infrastructure assets and changes to the market or sub-sectors brought on by the pandemic, including the resiliency of different sectors.



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MAY 21

Paul Forrester Discusses Offshore Wind Projects at Bank of America's Offshore Wind Conference

On May 21, 2021, Chicago Projects partner Paul Forrester discussed various legal challenges that will arise in offshore wind development, including the complex required permitting and managing local opposition, equipment and infrastructure issues (including the Jones Act), and coordinating transmission. A few highlights of Paul's discussion included:

1. The importance of onshore interconnection;
2. Potential inefficiency and vulnerability of project-specific transmission versus "networked" grid transmission, and
3. The underappreciated opportunity for OSW in the Great Lakes.

Projects & Infrastructure Upcoming Events

Mayer Brown's Projects & Infrastructure team present and participate at various industry events and webinars throughout the year. To learn more about our involvement, please contact us at workingcapital@mayerbrown.com.

DATE	EVENT	SPEAKER	FORMAT / LOCATION
July 27-28	Advanced Hedging for Renewables: Risk Appetite & Market Shift Master Class	John Tormey	Virtual
September 13-15	Public-Private Partnership Conference & Expo 2021		Dallas
September 20-23	Solar Power International		New Orleans
September 28-29	REFF Wall Street		Hybrid New York
October 5-6	USP3 Forum		
October 12	NetZero Conference	Greg Matlock	Virtual
October 19-20	Platt's Financing US Power Conference		New York
October	Proximo Financing America's Infrastructure 2021	TBC	Hybrid Nashville
October	Proximo Latin America 2021: Energy & Infrastructure Finance	Doug Doetsch	Hybrid New York
November	Forum on US Infrastructure Law	Joe Seliga	Marina del Rey
November 17-18	Proximo US Power & Renewables Finance 2021	TBC	Hybrid Austin

Accolades

Mayer Brown's Projects & Infrastructure Industry Team thanks our clients for trusting us with their most important transactions. Our Projects & Infrastructure Industry Team leverages our collective experience across our practice groups and global platform to deliver the highest quality legal services and commercial advice for projects and infrastructure matters across asset classes and transaction structures.

2021



118 LAWYERS RANKED

RANKED IN Banking & Finance, Construction, Projects & Energy, Projects & Energy: Mining & Minerals



170 LAWYERS RANKED

SPOTLIGHT TABLE
Banking & Finance, Projects

BAND 1 Projects: PPP

RANKED IN Energy: Electricity (Transactional), Energy Sector (International & Cross-Border), Projects: Renewables & Alternative Energy



21 LAWYERS RANKED*

RANKED IN Banking & Finance, Project Finance

** Includes lawyer from Tauli & Chequer Advogados in association with Mayer Brown*



49 LAWYERS RANKED

SPOTLIGHT TABLE: Projects

RANKED IN Energy & Natural Resources: Oil & Gas



16 LAWYERS RANKED

BAND 1 Projects & Energy: Mining & Minerals

RANKED IN Projects & Energy



52 LAWYERS RANKED

RANKED IN Banking & Finance, Projects & Infrastructure



TIER 1 Project Development Power

RANKED IN Banking, Capital Markets, M&A, Project Finance and Project Development Oil & Gas

2020



NORTH AMERICA ROADS DEAL OF THE YEAR
Metropistas



2020 INFRASTRUCTURE FINANCING OF THE YEAR
Caribbean: Trans-Jamaican Highway LatinFinance



TAG PIPELINE (BRAZIL) DEAL OF THE YEAR
Latin America M&A

CRC TRANSMISSION LINE (CHILE) DEAL OF THE YEAR
Latin America Transmission



DEAL OF THE YEAR
Projects Lāwa'i 28MW solar power plant / 100MW energy storage facility

PROJECT DEVELOPMENT
Power, Tier 1

Mayer Brown is a distinctively global law firm, uniquely positioned to advise the world's leading companies and financial institutions on their most complex deals and disputes. With extensive reach across four continents, we are the only integrated law firm in the world with approximately 200 lawyers in each of the world's three largest financial centers—New York, London and Hong Kong—the backbone of the global economy. We have deep experience in high-stakes litigation and complex transactions across industry sectors, including our signature strength, the global financial services industry. Our diverse teams of lawyers are recognized by our clients as strategic partners with deep commercial instincts and a commitment to creatively anticipating their needs and delivering excellence in everything we do. Our “one-firm” culture—seamless and integrated across all practices and regions—ensures that our clients receive the best of our knowledge and experience.

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