

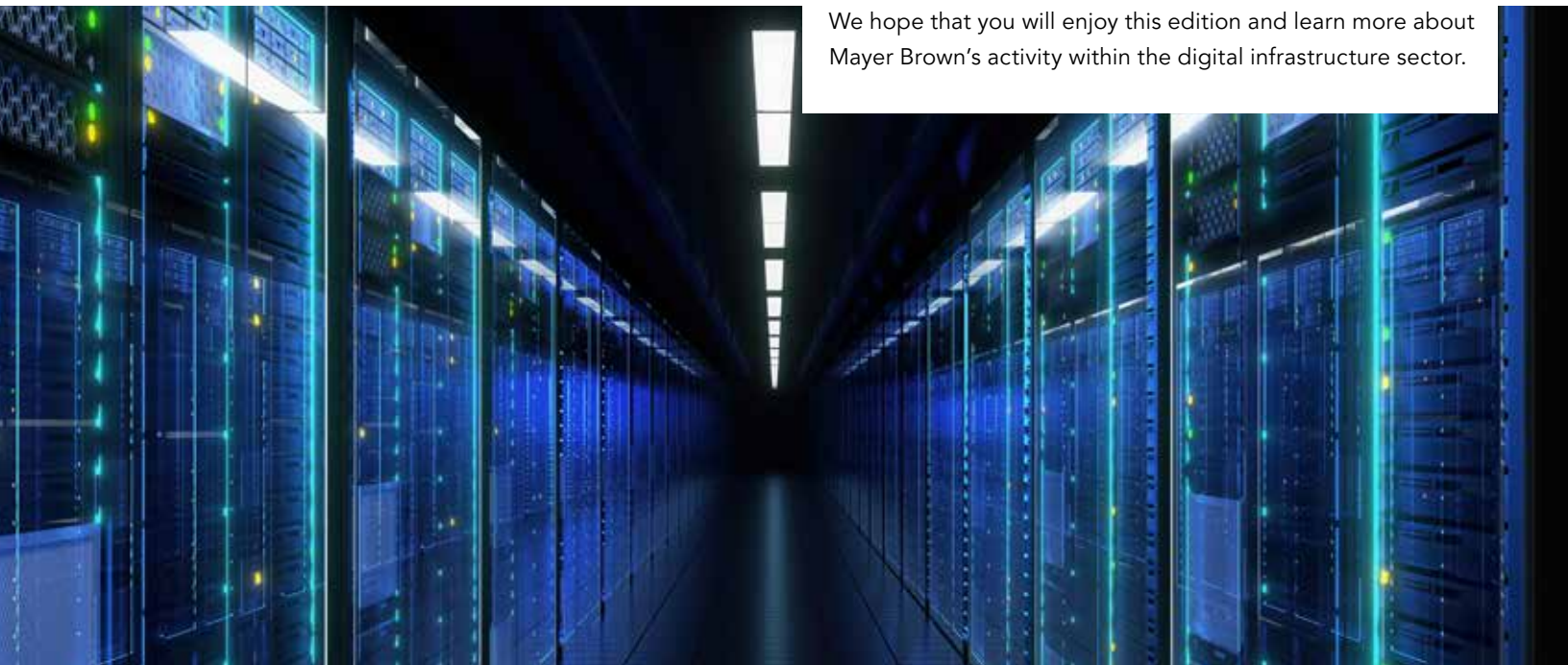
WORKINGCAPITAL

FOURTH EDITION Q4 2021 | PROJECTS & INFRASTRUCTURE NEWSLETTER

The pandemic has done nothing to slow the need for investment in infrastructure, most notably digital infrastructure. In fact, the pandemic seems to have accelerated the increased deal activity in digital infrastructure – from data centers to fiber to towers – over the past two years. As the need for high speed internet increases due to working from home and streaming online classes – there is no slowdown of digital infrastructure investment in sight. In this edition of *Working Capital*, we speak with New York-based partner, Fritz Lark, a member of Mayer Brown’s Infrastructure Investment team, on the rise of digital infrastructure investment and the impact of ESG on this growing asset class.

Mayer Brown’s Infrastructure Investment team is experienced in transactions across a broad range of industries within the infrastructure sector, from utilities to rail, energy to social infrastructure, to transportation, ports and digital infrastructure. As an example of our work in the digital infrastructure sector, late last year Mayer Brown’s Infrastructure Investment team represented DIF Capital Partners in their acquisition of Joink, a telecommunications infrastructure company that provides enterprise fiber, residential fiber and fixed wireless services. We remain at the forefront of digital infrastructure – advising clients of trends, issues and investment structures.

We hope that you will enjoy this edition and learn more about Mayer Brown’s activity within the digital infrastructure sector.



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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.



MAKING THE SWITCH

The energy industry is in the midst of a significant transformation. Dubbed the “energy transition”, the recent focus on alternative energy sources, reflected in capital and consumer preferences, is driving discussions and decisions toward “cleaner energy” and achieving Net Zero. Traditional energy companies are evaluating whether to pivot or expand with the changing tide [READ MORE](#)



“ILLINOIS ENACTS COMPREHENSIVE CLIMATE AND CLEAN ENERGY LEGISLATION”

In September, Illinois Governor JB Pritzker signed the omnibus, 956-page climate and energy legislative package titled the Climate and Equitable Jobs Act (the “CEJA”). The CEJA has an immediate effective date. Following years of negotiations between clean energy and climate activists, labor leaders and the regulated utilities industry, the CEJA expands investments in clean energy and targets a transition to 40% of electricity being provided by renewable energy by 2030, 50% by 2040 and 100% from carbon-free sources by 2050. [READ MORE](#)



94 INVESTORS REPRESENTING OVER \$6 TRILLION OF AUM VOICE SUPPORT FOR MANDATORY HUMAN RIGHTS AND ENVIRONMENTAL DUE DILIGENCE

On 7 October 2021, 94 investors representing over \$6.3 trillion in assets under management and advisement, sent a statement to European Commissioners and the European Parliament, voicing their support for mandated human rights and environmental due diligence (mHREDD) (the “Statement”). The Statement was sent in light of the upcoming European Commission legislative proposal on Sustainable Corporate Governance. The proposal would require companies to consider their human rights and environmental impacts, allowing them to better manage sustainability related matters in their value chains and overall operations. [READ MORE](#)



ESG DERIVATIVES: A SUSTAINABLE TREND

With the 2021 United Nations Climate Change Conference (also known as COP26) coming to Glasgow later this month and amid numerous occurrences of extreme weather, there has been an increased global focus on climate change recently which is reflected in the financial markets. By some estimates, the sustainable finance market grew by almost 30% in 2020. Derivatives linked to environmental, social and governance (“ESG”) objectives have been around for several years, but this previously niche marketplace is growing, reinforcing the idea that derivatives have a key role to play in the advancement of ESG objectives in the financial markets and the global transition to a green economy. [READ MORE](#)



US FSOC REPORT: CLIMATE-RELATED FINANCIAL RISK AN EMERGING THREAT

On October 21, 2021, the United States Financial Stability Oversight Council (FSOC1 or Council) released its 133-page report on Climate-Related Financial Risk (Report) and related Factsheet. The Report was produced in response to a directive in President Biden's May 20, 2021, Executive Order on Climate-Related Financial Risk and followed closely on the heels of the Biden administration's release of its Roadmap to Build a Resilient Economy (Roadmap) on October 14, 2021, and was issued only days before the opening of the UN's Climate Change Conference (COP26). [READ MORE](#)



HM TREASURY PUBLISHES ITS UK SUSTAINABLE FINANCE ROADMAP

In a significant development in the UK government's drive towards "greening" the financial system, as part of the transition to a net zero carbon economy, HM Treasury published, on 18 October 2021, a policy paper entitled "Greening Finance: A Roadmap to Sustainable Investing" (the "Roadmap"). [READ MORE](#)



CONVERTING HOT AIR INTO POSITIVE ACTION

Many factors are putting pressure on corporates and financial institutions to address climate change. The UK is currently rolling out mandatory economy-wide disclosure in accordance with the Task Force on Climate-Related Financial Disclosures ('TCFD') Recommendations. Beyond this lies immense investor and stakeholder pressure, including by way of shareholder resolutions, and increased media, NGO and ratings agency attention on those who are perceived to not be doing enough. We are now living in an "ESG world", and it is all but impossible to address the "E" without a sound climate action plan of some kind. [READ MORE](#)



INTERIOR DEPARTMENT: THREE MILESTONES FOR OFFSHORE WIND ENERGY DEVELOPMENT IN THE ATLANTIC AND GULF OF MEXICO

On October 28, 2021, in furtherance of the Biden-Harris administration's goal of deploying 30 gigawatts (GW) of offshore wind energy by 2030, the US Department of the Interior announced three major offshore wind development proposals. [READ MORE](#)



THE VIEW FROM COP26

Emissions reduction targets, market mechanisms and finance are only three of the many complex issues being discussed at COP 26, but they are probably those which are of most interest to the private sector. Though governments are the entities that will be bound by COP decisions, the private sector will live with the consequences. Many businesses have already spent significant amounts of time and money transforming their business models to be "climate appropriate". Others have yet to start this journey. None have completed it. A weak outcome from COP 26, which does not send a signal that governments remain committed to being guided by the demands of climate science, will make the journey even more treacherous. [READ MORE](#)



BIDEN ADMINISTRATION ASSERTS CLIMATE LEADERSHIP AND RELEASES LONG-TERM STRATEGY FOR NET-ZERO GHG BY 2050

Timed to coincide with the opening of COP26—the UN Climate Change Conference—and citing his prior commitment to cutting greenhouse gas (GHG) emissions by 50-52 percent by 2030 and achieving a net-zero economy by 2050, on November 1, 2021, President Biden announced the launch of the President’s Emergency Plan for Adaptation and Resilience (PREPARE). This

whole-of-government initiative by FY2024 would provide \$3 billion annually in adaptation finance to reduce climate impacts on those most vulnerable to climate change worldwide. The announcement constitutes the first US Adaptation Communication under the Paris Agreement, which President Biden rejoined on the first day of his administration. [READ MORE](#)



MEXICO - AMLO SUBMITS NEW ENERGY REFORM INITIATIVE

On October 1, 2021, an initiative sent by Mexican President Andrés Manuel López Obrador (“AMLO”) to reform Articles 25, 27 and 28 of the Mexican Constitution (the “Initiative”) was published in the Parliamentary Gazette (Gaceta Parlamentaria) of the House of Representatives. Although intended to strengthen the finances of the Federal Electricity Commission (Comisión Federal de Electricidad “CFE”), the Initiative would certainly have negative repercussions for all

companies involved in the energy sector. [READ MORE](#)



COP26 HEATS UP AND GLOBAL TEMPERATURE PLEDGES SPUR OPTIMISM

As the 2021 United Nations Climate Change conference gathers momentum, our colleague, Tim Baines finds optimism beyond the platitudes. [READ MORE](#)



TCFD: PREPARING FOR MANDATORY REPORTING

Many UK companies will soon be mandated to make TCFD-aligned disclosures. This follows the Financial Conduct Authority’s (FCA) introduction of the Listing Rules (Disclosure of Climate-Related Financial Information) Instrument in December 2020, which requires companies with a UK premium listing to disclose on a comply-or-explain basis against the Task Force on Climate-related Financial Disclosures (TCFD) recommendations in their annual reports. The FCA and UK Government have

held consultations on extending this requirement to standard-listed and large private companies. [READ MORE](#)



INITIAL CLIMATE CHANGE RISK MANAGEMENT EXPECTATIONS ISSUED BY US OCC

On November 8, 2021, the acting head of the Office of the Comptroller of the Currency (“OCC”), Michael J. Hsu, issued a call to action on climate change to the boards of directors of OCC-regulated banks. Specifically, he outlined an initial series of climate change-related questions that boards should be asking bank management and stated that bank boards should use the exercise to help improve climate risk management practices and build up climate risk management and

reporting capabilities. While he indicated that this is a long-term effort that will include further guidance from the agency, it is clear from his call to action that the OCC expects banks to begin right now. [READ MORE](#)



PROGRESS FOR AMERICA'S INFRASTRUCTURE UNDER THE INFRASTRUCTURE INVESTMENT AND JOBS ACT

On November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs Act, H.R. 3684. This act includes \$550 billion in new spending over five years for various projects such as roads and bridges, rail, public transit, ports and waterways, airports, and broadband—a multi-year authorization and commitment likely to provide significant incentives for the private sector to invest in infrastructure. This Legal Update summarizes key provisions in the act that intend to encourage public-private partnerships and private sector investment in infrastructure [READ MORE](#)



LATEST US ENERGY DEPARTMENT "EARTHSHOT" TO TACKLE CARBON DIOXIDE REMOVAL

On November 5, 2021, Secretary Jennifer M. Granholm announced the latest of the US Department of Energy's (DOE) Earthshots¹—the "Carbon Negative Shot"—with a new goal to remove gigatons of carbon dioxide (CO₂) from the atmosphere and durably store it for less than \$100/ton of net CO₂-equivalent. This represents the first official US effort in carbon dioxide removal (CDR). [READ MORE](#)



INTERIOR DEPARTMENT: AREA OFFSHORE CENTRAL CALIFORNIA OFFICIALLY DESIGNATED FOR OFFSHORE WIND ENERGY DEVELOPMENT

The US Department of the Interior announced its designation of the Morro Bay Wind Energy Area (WEA) offshore central California. The WEA is about 240,898 acres (376 square miles) and roughly 20 miles off the coastline. The Morro Bay WEA includes portions of the area first analyzed in the Bureau of Ocean Energy Management's (BOEM) October 2018 Call for Information and Nominations, and it also includes two extensions analyzed in BOEM's July 2021 Call for Information and Nominations. BOEM will now move forward with preparing an Environmental Assessment (EA) under the National Environmental Policy Act to consider potential impacts from site characterization activities and site assessment activities within the WEA. [READ MORE](#)



THE CFA INSTITUTE RELEASES GLOBAL ESG DISCLOSURE STANDARDS FOR INVESTMENT PRODUCTS

The sheer volume of capital flows into sustainable, or ESG-focused, funds and products over recent months reflects the rapidly increasing number of investors with ESG-related preferences, or demands, when selecting those investments. Evaluating, and comparing, the ESG credentials of different investment products presents significant difficulties, however, in circumstances where information and disclosures about those products – and even the terminology used – are, at best, inconsistent, and often incomplete; and, at worst, may attract accusations of "greenwashing", by using marketing materials to mislead investors about the ESG approaches used in their products. [READ MORE](#)



COP26 IS OVER: DOWN BUT NOT OUT IN GLASGOW

As usual, things ran over, but eventually the parties meeting under the United Nations Framework Convention on Climate Change and, separately but together (kind of), under the Paris Agreement, adopted two "Decisions" by consensus, being CP.26 and CMA.3 respectively. [READ MORE](#)



EUROPEAN COMMISSION PROPOSES RESTRICTIONS AND DUE DILIGENCE REQUIREMENTS FOR PRODUCTS ASSOCIATED WITH DEFORESTATION AND FOREST DEGRADATION

On November 17, 2021, the European Commission (“Commission”) published a proposal that seeks to prohibit placing or making available on the European Union (“EU”) market as well as exporting from the EU certain commodities and products associated with deforestation and forest degradation (“Proposal”). Through the Proposal, the Commission intends to impose stringent due diligence requirements on operators and traders that place on or export from the EU market these commodities and products, subject to extensive checks, redressive measures and penalties by the competent authorities of the EU member states. [READ MORE](#)



CHEMICAL SUPERFUND EXCISE TAXES REINSTATED, INCREASED AND EXPANDED BY US INFRASTRUCTURE ACT; HOUSE-PASSED BUILD BACK BETTER ACT PROPOSES REINSTATEMENT OF SUPERFUND EXCISE TAX ON CRUDE OIL AND PETROLEUM PRODUCTS

On November 15, 2021, President Biden signed the Infrastructure Investment and Jobs Act into law, reinstating two long-expired Superfund excise taxes on certain manufactured and imported chemicals, with effect as of July 1, 2022, through December 31, 2031. As a result, chemical companies will need to undertake a detailed review of the chemical composition of their products and their supply chain to understand if a product is subject to excise tax or whether an exception applies. This Legal Update provides further detail. [READ MORE](#)



ASEAN RELEASES SUSTAINABILITY TAXONOMY FOR SOUTHEAST ASIA

On November 10, 2021, the Association of Southeast Asian Nations (ASEAN) released Version 1 of the ASEAN Taxonomy for Sustainable Finance (the “ASEAN Taxonomy”). First announced in March 2021, the ASEAN Taxonomy will provide a common language for sustainable finance among the ten ASEAN Member States (AMS) that, together, comprise the fifth largest economy in the world. This is a necessary and timely development as ASEAN remains highly vulnerable to climate change, which has had a significant impact on the people, businesses and governments of ASEAN. [READ MORE](#)



MAKING THE GRID MORE CLIMATE-RESILIENT: REPORT ON FEBRUARY 2021 COLD WEATHER OUTAGES IN TEXAS AND SOUTH CENTRAL US HIGHLIGHTS THE CHALLENGES

The November 16, 2021, “February 2021 Cold Weather Outages in Texas and the South Central United States” report¹ (Report) by staff of the Federal Energy Regulatory Commission (FERC), the North American Electric Reliability Corporation (NERC) and certain NERC-recognized regional entities (Regional Entities) describes the severe cold weather event (Event) occurring between February 8 and 20, 2021, and how it impacted the reliability of the bulk electric system (BES or grid) in Texas and the South Central United States. [READ MORE](#)



“JUST TRANSITION: THE WORLD BENCHMARKING ALLIANCE PUBLISHES ITS ‘JUST TRANSITION ASSESSMENT’”

During the COP26 summit, a coalition of 190 countries and organisations committed to phase out coal energy by 2040 as part of their commitment to transition to a low-carbon economy. The coalition also stated, in their ‘Global Coal To Clean Power Transition Statement’, that they would provide a framework to support affected workers, sectors and communities to make a “just transition” away from unabated coal power. The coalition’s concern is that the transition to a low-carbon economy may leave many coal-dependent economies at risk of economic hardship and social unrest. [READ MORE](#)



IOSCO REPORT HIGHLIGHTS ESG DATA DEFICIENCIES, CALLS FOR OVERSIGHT AND MAKES REMEDIAL RECOMMENDATIONS

On November 23, 2021, the International Organization of Securities Commissions (IOSCO) issued its “Environmental, Social and Governance (ESG) Ratings and Data Providers” final report (Report) in which IOSCO notes that “the use of environmental, social and governance (ESG) ratings and data products has grown considerably in response to investors’ mounting interest in investing in companies that take account of sustainability in the way they are run. As a result, the role and influence of ESG ratings and data products providers in financial markets more generally, and in the sustainable finance ecosystem more specifically, have grown significantly. This has led some securities markets regulators to take a closer interest in the activities and business models of these providers.” [READ MORE](#)

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.



The Deal List

The Deal List is a limited selection of recent notable transactions undertaken by members of our Projects & Infrastructure Industry Team. Please visit our [Projects & Infrastructure](#) page for a more extensive list of our experience, including other recent transactions.

CDPQ

BLACKSTONE EQUITY INVESTMENT IN INVENERGY

Advised CDPQ on USD 3 billion equity investment by Blackstone Infrastructure Partners in Invenergy LLC.

December 2021



CARRASCO AIRPORT REFINANCE

Represented Goldman Sachs as exchange agent in respect of a Rule 144A/Reg S USD 246 million exchange offer for ACI Airport Sudamérica S.A. backed by revenues of the Montevideo Airport.

December 2021



BRAZILIAN REFINERY ACQUISITION

Represented Diatom in a mezzanine financing in support of the USD 1.6 billion acquisition of Refinaria Landulpho Alves (RLAM) refinery by Mubadala Capital from Petrobras.

November 2021



US HIGHWAY PORTFOLIO

Sale of HMSHost's US highway rest area portfolio to Blackstone Infrastructure & Applegreen - the largest such portfolio in the nation.

July 2021



TELECOMMUNICATIONS ACQUISITION

Acquisition of a majority interest in Joink, LLC, a telecommunications infrastructure company that provides enterprise fiber, residential fiber, and fixed wireless services.

December 2021

JERA

FLOATING OFFSHORE WIND

Representing JERA with respect to joint venture arrangements for the development of a unique floating offshore wind platform, including advising on shareholder agreement arrangements, FDI clearance and ongoing project development matters.

Ongoing

**Deutsche Bank****SOY BARRANQUILLA DEVELOPMENT PLAN**

Represented Deutsche Bank AG in a USD 100 million credit facility with Distrito Especial, Industrial y Portuario de Barranquilla for the purpose of financing public infrastructure projects included in the 2020-2023 development plan - first sub-sovereign debt in Colombia in nearly a decade and first dollar debt financing ever for Distrito de Barranquilla.

September 2021

CDPQ | BNP Paribas | Itaú | SMBC**CONEXIÓN PACÍFICO 2 TOLL ROAD PROJECT**

Represented BNP Paribas, CDPQ, Itaú and SMBC in a USD 278 million refinancing of the original construction debt of the financing of the Concesión Autopista Conexión Pacífico 2 toll road project in Colombia, which includes 42.5 km of new roads, 2.5 km of tunnel-ways, including the pioneering Tunel de Mulatos, 54 km of rehabilitated roads and 43 bridges. Transaction involved, among others, a USD 260 million term loan facility and a USD 18 million letter of credit facility.

June 2021

Citigroup Capital Markets**P3 DEAL OF THE YEAR 2021: EMPIRE STATE THRUWAY PARTNERS, THE BOND BUYER**

Represented Citigroup Capital Markets with surface transportation PABs to support capital improvements by Empire State Thruway Partners for the rest stop network on the New York State Thruway - first issuance of surface transportation PABs to finance rest stop/toll plaza improvements on existing toll roads.

March 2021

Morgan Stanley**BRIGHTLINE PASSENGER RAIL NETWORK**

Represented Morgan Stanley in connection with a three-part financial plan to support completion of construction by an affiliate of Fortress Investment Group of the Brightline Florida passenger rail system from Miami to Disney World.

2019-2021

In Conversation



Mitch Holzrichter speaks with M&A partner Fritz Lark on the rise of digital infrastructure as an asset class for investors

Mitch Holzrichter, a partner in Mayer Brown's Projects & Infrastructure Industry Team, interviews Fritz Lark on the rising trend of digital infrastructure as an asset class for investors and the capital injection needed to support this growing trend. Fritz is a partner in Mayer Brown's Corporate Practice and a member of the Projects & Infrastructure Industry Team and the firm's Infrastructure Investment group.

MITCH It seems like almost every week there is another announcement of a digital infrastructure deal. What is happening in that sector?

FRITZ In the last year or two, deal activity has really taken off in digital infrastructure, and the pace seems to be continually accelerating. Also, the activity has been across the board – we are seeing a lot of interest and deals across the sector, including data centers, fiber/broadband and towers. It's not concentrated in one particular area.

MITCH I see. What do you think is driving all of this interest and activity?

"As ecommerce and working from home have increased, the demand on digital infrastructure has similarly increased, resulting in a need for significant investment in the sector."

FRITZ I believe it's a combination of factors, but in large part it has all been accelerated by the pandemic. As ecommerce and working from home have increased, the demand on digital infrastructure has similarly increased, resulting in a need for significant investment in the sector. Much of the M&A activity that we have been seeing is being driven by this need for investment and greater access to capital. There is also opportunistic selling given the uptick in interest in this asset class, which creates additional activity.

MITCH Who are the investors and acquirers in these transactions, and how are the transactions structured?

FRITZ We are seeing a mix of private equity/infrastructure funds and strategic companies in these transactions. For example, looking at two of the largest data center deals last year, in one, KKR and Global Infrastructure Partners, an investment firm and an infrastructure investor, teamed up to acquire CyrusOne, one of the largest global data center companies, in a \$15 billion acquisition. In the other, American Tower, one of the largest tower owners in the world, agreed to acquire CoreSite, another large data center provider, in a \$10.1 billion transaction. I would also note that there appears to be significant fundraising occurring for digital infrastructure focused funds, so that will lead to additional investors and acquirers in the market.



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With respect to transaction structures, we are seeing straightforward acquisitions as well as a variety of different types of investments, from preferred equity, to minority equity interests to investments to obtain a controlling stake. Many of these transactions are driven by an underlying need for capital to fund the growth of the business, with the funding coming either from the initial investment, or the investor's access to capital for projected growth.

MITCH Looking at fiber/broadband in particular, what activity are you seeing there? How do you see that being impacted by governmental programs and the Infrastructure bill?

FRITZ Similar to the other areas of digital infrastructure, we are seeing strong deal activity in fiber. One area that has been drawing a lot of attention lately is fiber-to-the-home. With people working from home, streaming classes and shopping from home during the pandemic, that really put a spotlight on the need for fiber-to-the-home infrastructure, and highlighted that a large portion of the U.S. population doesn't have the high speed internet access necessary for this shift, particularly in more rural areas. A good example of this is DIF Capital Partners recent transaction with Joink. DIF specifically noted that the future fiber-to-the-home roll out is critical to ensure that residents in Indiana and Illinois have reliable high speed internet access through Joink's fiber network. I would expect to see a similar sentiment in markets across the country.

Given the substantial need for investment in this area, I believe that there is room for both private and public investment, and I don't believe that public investment will crowd out private transactions. Some areas of the market may be more conducive to public investment, but even then in many cases it will be coupled with other types of private investment, such as P3 investment structures.

MITCH What do you see ahead? Any trends that you are watching?

FRITZ I believe that the level of deal activity in this sector will continue, if not accelerate, in the near term. I think that it's likely that we'll continue to see convergence, as was seen in the American Tower/CoreSite transaction, as market participants expand into new areas looking to grow and consolidate.

One trend that I believe we'll see more of is the use of renewable energy to power data centers. Many if not most of the largest data center owners, including Facebook, Google and Amazon, are already powering their data centers using renewable power, with Amazon committing to go 100% renewable by 2030. This parallels the impact of ESG principles on the broader market, and the general market sentiment to "go green." Data center operators are addressing this challenge in a variety of ways, including onsite renewable generation and corporate power purchase agreements. What this means for smaller data center operators, and whether this becomes a driver for consolidation remains to be seen.

"Many, if not most, of the largest data center owners, including Facebook, Google and Amazon, are already powering their data centers using renewable power"

Another potential trend that we are seeing is the inclusion of digital infrastructure, and fiber in particular, to be incorporated in some larger district energy systems when they are put out for bid as part of a P3 process. There is an economy realized by incorporating more assets into a project and using the same construction work for multiple utility systems at the same time.



The National Hydrogen Program and the Regulation (or Not) of Hydrogen in Brazil¹

The global energy landscape and climate change have put new pressure on the economy to decarbonize. Thus, renewable energy sources and inputs have been sought for a wide variety of industries and consumer markets. In this scenario of energy transition, hydrogen has been gaining importance as a potential new key element. Hydrogen has the physicochemical characteristics that allow it to become both an energy source and a renewable and non-polluting input with many practical purposes. It can be used directly as an energy source in the automotive, aerospace, and power generation industries. It can also be used as an input in several industrial segments—steel, food, chemical, mineral, cement, petrochemical, fertilizer, technological, among others.

Number 1 on the periodic table, hydrogen (H) is the most abundant chemical element in nature, constituting approximately 75% of the elemental mass of the universe,² and can be obtained in a variety of ways. Depending on how hydrogen is obtained (and its polluting degree), it can be classified by colors, the main ones being gray, white, blue or green. Green hydrogen, in particular, has received a lot of attention and investment from the market, as it is a renewable energy source that can be used in the whole production chain, from the initial generation of renewable electric energy to the water electrolysis process that leads to hydrogen production. However, green hydrogen's cost is still very high when compared to its non-renewable alternatives, whether as an input for other industries or as an energy source. Therefore, it is crucial that the entire hydrogen industry be open to investment in research and development. It is also fundamental that its market be open to free competition, which would spur innovation in the market to provide the economy of scale and technological evolution needed to increase its pro-

ductivity and, consequently, decrease its cost.

In this setting, the National Hydrogen Program (PNH)³ was published by the Ministry of Mines and Energy (MME) in July 2021. Its purpose is to “develop and consolidate the hydrogen market in Brazil, as well as promote the international introduction of the Country on an economically competitive basis.” Among its objectives, the PNH lists these related to a “Legal and Regulatory-Normative Framework”:

“Analyze the existing national laws and regulations to subsidize the inclusion of Hydrogen as an energy vector and fuel in the Brazilian energy matrix. Promote the regulation, through governmental agencies, of the production, transport, quality, storage and use of hydrogen and its technologies by:

- a. Analyzing the existing authorities of regulatory agencies, competent bodies or entities, as well as new needs;
- b. Assessing the need for proposing regulations on new technologies at the three levels (federal, state and municipal);
- c. Observing that regulation should remain open to market conditions and avoid barriers and technological lock-in;
- d. Evaluating interrelations between sectors and proposing harmonization;
- e. Seeking to develop and establish codes, norms and standards issued by national institutions in line with international rules;
- f. Promoting cooperation among governmental agencies for the regulation of hydrogen, considering its multiple sources and uses, seeking regulatory harmonization, citing as an example the transportation of hydrogen mixed with natural gas;
- g. Evaluating the need to propose additional standards related to safety for the production, transportation and use of hydrogen; and
- h. Assessing the need to develop hydrogen certification mechanisms, for production and consumption.”



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Given the context of the hydrogen global market and the huge potential for Brazilian participation, a very common question soon arises for a country such as Brazil, used to a strongly regulated economy (where there is not exactly a “free enterprise” regime but a regime of “regulated enterprise”): how is or how should hydrogen be regulated in the country? From a political-economic vision of strong state control of economic activity, a market for a product/element of such economic relevance that is not duly controlled, regulated and administered by the state would be inconceivable. The question is not directly answered in current legislation, however. This is because a large part of the hydrogen chain is already under general norms or under specific industries’ regulatory norms; in addition, certain aspects could still fall in a “competence vacuum” between the existing legislations and regulatory agencies.

On the other hand, from a pro-market and pro-free enterprise view, which formed the basis of the recent Economic Freedom Law, it can be argued that existing regulation already regulates the activities of the hydrogen chain and does not require additional regulation. In this sense, economic freedom (which includes freedom of initiative) should be the rule, and regulation should only be exceptional,⁴ only when eminently necessary and only to the extent necessary to guarantee people’s basic first generation human rights (life, liberty and property).⁵

So do we need additional regulation for hydrogen in Brazil? Let’s see.

Firstly, for the upstream part of the hydrogen chain, the legislation regarding its initial acquisition already exists and depends on mode. Different publications often use certain colors to designate hydrogen obtained by different processes.⁶ Of the main colors, we highlight gray, white, blue or green. In most cases, such acquisition is already subject to its own regulation, depending on the modality, and, consequently, its method of production. Gray hydrogen is obtained from natural gas or coal, and the exploration and production of both is already duly regulated by the Brazilian oil and gas and mining legislations, respectively. The same goes for blue hydrogen, which derives from the same sources but differs from gray hydrogen by the fact that CO₂ can be separated and captured in its production process. Regarding green hydrogen, obtained through the electrolysis of water and from the generation of renewable electric energy (especially solar, wind or hydro), both the source and use of its water input, as well as the generation of its other (renewable) energy input, are already regulated by the National Water and Basic Sanitation Agency (ANA) and the National Electric Energy Agency (ANEEL), respectively. This leaves white hydrogen as a special situation, which we analyze below.

Once the inputs for the industrial/artificial production of hydrogen are obtained (i.e., through physicochemical or biochemical processes), the next activity in the chain—purchasing such inputs for industrial/artificial production—would not need additional state regulation. This activity is already subject to existing legislation for the protection of people, goods, and the environment, such as through environmental and technical safety regulations. An industrial hydrogen production activity would be equivalent to several other industrial activities that use chemical elements as inputs (or as a final product). Normally, they do not require concession, authorization or additional specific regulatory licensing. And this does not mean that they are “unregulated” or “unlawful” since the company that practices such industrial activities must already follow and respect all the general Brazilian legislation (which is considerable and complex when compared to that of other countries). This compliance with the general Brazilian law includes the need to obtain the environmental license applicable to the industrial activity in question and given the product’s perilous characteristics. Also, this means respecting the technical and safety rules in dealing with the material (for example, for its flammable characteristics), which is already the object of analyses and regulations by ABNT (e.g., by ABNT/CEE-067) and by INMETRO (e.g., by UTILH2). Additionally, such a company must already pay the taxes levied on its revenues and profits as well as observe all other Brazilian legislation, such as that regarding labor, civil, business, competition and exchange rate. The same reasoning applies to the company that engages in the activity of storing this industrially produced hydrogen.

Finally, on the final consumption end of hydrogen, the same legal-normative reasoning would apply to the other industries. The industrial activities mentioned above, such as the production of steel, fertilizer, food and petrochemicals, use hydrogen as their input, just as they use inputs such as water, plastics and energy. Therefore, they do not need a concession, authorization, or additional specific regulatory licensing. Such industries also already follow the existing environmental and technical safety rules. As for hydrogen-based power generation, the same rules are followed as mentioned above for green hydrogen.

A special consideration exists for white hydrogen, the natural or geological hydrogen extracted directly from the subsoil. Although there is already important scientific literature on the subject, little is known or has been discussed about this option’s economic use in the market.⁷ In this case, a legal discussion would arise as to whether white hydrogen would be a resource eventually owned by the federal government, by force of a constitutional command (CF arts. 20 and 176), since it doesn’t fit the definition of a ‘mineral’.

On the one hand, it can be argued that this resource produced in



an isolated way (or together with helium) would not be property of the federal government, since this rule only applies to mineral resources (which is not the case of hydrogen). Thus, there is no room for any debate on “participation in the results of the exploration” or “financial compensation for this exploration” (CF art. 20, §1st) because it is not a property of the federal government. Not being property of the federal government, hydrogen can be explored and produced by the owner of the surface soil.

In case white hydrogen is considered as property of the federal government, either (i) by an understanding contrary to the above; (ii) when the reservoir involves hydrocarbons or other minerals; (iii) (onshore) in cases where the state is the owner of the land with the white hydrogen reserve; or (iv) (offshore) by the exception of this natural resource being located on the continental shelf, in the exclusive economic zone and marine land; the need for some legal instrument is raised, by means of which the exploration and production of such a resource can be granted to third parties (whether public or private, national or foreign). In this particular case, discussions about a possible expansion of the current competence of the National Agency of Petroleum, Natural Gas and Biofuels (ANP) and the oil and gas legislation itself, which today only covers hydrocarbons, would be appropriate. Therefore, a regime similar to the one that currently exists for hydrocarbons should be used. In this case, the concession regime would possibly be applicable since we are not dealing with pre-salt polygon areas or, as a general rule, areas that are considered strategic (so far). However, the current government participation as a whole in the oil and gas regimes (including the concession regime) would probably not be commensurate with hydrogen’s current market monetization potential nor with the incentive (or, from an Economic Freedom Law perspective, the absence of “state disincentive”) that hydrogen needs for its development.

Hydrogen really has the potential to be one of the big players in the energy transition to a low carbon economy. For this purpose, it is fundamental not to create legal insecurity (through unnecessary additional rules and regulations) or bureaucratic procedures (such as those related to concessions and authorizations) that could discourage or even make its development impossible. It is paramount that any regulatory attempt respects Objective C in section 5.4 of the PNH: “See that regulation remains open to market conditions and avoids technological barriers and lock-in”. Parodying the words of the PNH, we must prevent the “Legal and Regulatory-Normative Framework” (“Arcabouço”) from becoming a Legal and Regulatory-Normative “Calaboose” (“Calabouço”) by imposing “barriers and lock-ins” to innovation in the hydrogen sector. Outside of the exception for the particular case of white hydrogen, as described above, for hydrogen’s other industrial uses (as in the case of gray, blue and green hydrogen), the Brazilian legislation does not need additional regulation in the sense of requiring concession, authorization or specific regulatory licensing. As it is, Brazilian law is fully compatible with the development of hydrogen-related activities. Therefore, it is possible to immediately start industrial production, storage, transport and hydrogen consumption activities in Brazil based on the current legal and regulatory framework. Along these lines, and following the vision of classical economics, on which the Economic Freedom Law is based, many times the best way for the state to facilitate the development of an incipient and innovative industry such as hydrogen, which is proving to be crucial for the planet’s sustainable development, is to prevent the creation of regulatory barriers, that is, “not to get in the way.”

Note di chiusura

- ¹ Author: Paulo Rage, Ph.D. (*cand.*), Master and Bachelor in Economic Law from the Federal University of Minas Gerais - UFMG. Lawyer. Partner at Tauil & Chequer Advogados associated to Mayer Brown.
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- ⁶ MINISTRY OF MINES AND ENERGY. *Bases para a Consolidação da Estratégia Brasileira do Hidrogênio*. Available at: <[https://www.epe.gov.br/sites/pt/publicacoes/dadosabertos/publicacoes/PublicacoesArquivos/publicacao569/Hidroge%CC%82nio_23Fev2021NT%20\(2\).pdf](https://www.epe.gov.br/sites/pt/publicacoes/dadosabertos/publicacoes/PublicacoesArquivos/publicacao569/Hidroge%CC%82nio_23Fev2021NT%20(2).pdf)> Accessed on August 07, 2021.
- ⁷ *Ibid*, p. 7.

In Conversation

Ariel Ramos on the Proposed Changes to Mexico's Electric Industry Legislation and the Response from Investors

Jose Valera, a partner in Mayer Brown's Global Energy industry group, interviews Ariel Ramos on President Andrés Manuel López Obrador's (aka AMLO) proposed changes to Mexico's electric industry legislation, the impact they will have on new private investment and the response from current investors. Based in Mayer Brown's Mexico City office, Ariel is a partner in the Global Energy group and the Banking & Finance practice.

JOSE Hi, Ariel. Could you tell us about Mayer Brown's Mexico City office and your professional background and practice?

ARIEL Thank you Jose. I am a partner in the Banking & Finance practice of the Firm's Mexico City office. I have a broad energy background and my practice focuses on energy transactions related to power, oil and gas, energy-related infrastructure and the Mexican energy reform. My clients include domestic and international companies as well as government entities, developers and sponsors, financial institutions, investment bankers and private equity funds.

"The protection of investor rights has national and international dimensions."

The firm's Mexico City Office was opened to serve clients in the Mexican energy market back in 2015. Since then, we have expanded our service offering to cover finance and corporate and securities with an in-depth focus on oil and gas, power, renewable energy, projects and project finance.

ARIEL In addition, we regularly advise on innovative transactions, both domestic and international, involving M&A, acquisition finance and acquisition leverage, fintech, asset and project finance, securitization/structured finance and derivatives, supply chain finance, trade finance, project finance, bank lending, cross-border lending and regulatory finance.

JOSE Proposed changes to electric industry legislation in Mexico are making headlines. Could you please start by giving us a broad overview of the industry's legal framework immediately prior to AMLO taking office in December 2018?

ARIEL Like other Latin American countries, Mexico has a long history of legal conflicts over its natural resources and private participation in the energy industry. But in the years previous to López Obrador taking office, the trend had been reversed to give way to new laws and regulations that gave private investors the opportunity to participate in the energy industry. The most transformative was the 2013 Reform, in which Mexico adopted a constitutional model of economic regulation in specific strategic sectors; it created a constitutional framework in which the electric industry would face market competition in the generation and commercialization of energy. All of this effectively suppressed the state monopoly. As a result, CFE would only stay involved in the electrical system with respect to transmission and distribution of electrical energy but not as a generator. This separation opened the market to competition, which led to more renewable generation connecting to the grid.

JOSE And then what changed under AMLO? What actions did he take?



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ARIEL During the first three years of the current administration, we have witnessed various modifications to the regulatory framework of the energy sector, to the point of being considered a sector of investment risk. The central theme of these changes followed a narrative of supposed energy security and sovereignty over natural resources and energy sources. The first significant blow, with drastic consequences, came when the Ministry of Energy published the Reliability, Security, Continuity and Quality Policy in the National Electric System, which used energy security as an excuse to limit the participation of private generators of renewable energy. The policy, supposedly motivated by the COVID-19 pandemic, stopped the dispatch of renewable energy to the National Electric System indefinitely due to its allegedly low reliability, which gave priority to CFE's electricity generation even though it meant more pollution and higher cost to the end user. But, fortunately, the tribunals who specialized in competition suspended the policy shortly after publication. After the failed attempt to limit private generation through changes in administrative regulation, the executive branch sent a preferential bill to reform the Electricity Industry Law with similar effect. The law was enacted, but it is being challenged by COFECE, the antitrust watchdog. The resolution is expected to be in line with previous resolutions from the courts, which have ruled in favor of a pollution-free environment and market competition thus far.

JOSE AMLO has also proposed to Mexico's Congress a constitutional amendment relating to the electric industry. What does the proposed amendment provide?

ARIEL This bill has been the most drastic to date since it threatens to exclude private investment from practically any activity related to the electricity industry and, in addition, fosters uncertainty in the hydrocarbon sector. Moreover, the changes effectively exclude private sector investments that were made possible by the 2013 Reform and the reforms of 1992 and 1995. The bill's text noted that CFE would be in charge of the purchase of energy and other products generated by private companies to meet the energy demand. In addition, the electric public service would be provided exclusively by CFE, eliminating the regime of free competition in generation and commercialization. For this, the bill proposes a generation quota in which private generators might supply a maximum of 46% of the national demand. However, canceling permits to private companies would raise new problems, and further questions would arise. Therefore, the private generation's restructuring would probably happen under secondary legislation.

JOSE What is the effect on the electric industry of all the actions taken by AMLO, and what would be the further effect if the constitutional amendment is approved as proposed?

ARIEL The explanatory memorandum of the bill airs the intention of reversing the energy reforms that have opened up the participation of the private sector in the electricity industry—and canceling not only the 2013 Reform but also the 1992 Reform. The bill reverses some of the most significant changes of the 2013 Reform that made CFE a decentralized body. The drafters of the bill argue that the growing demand for electricity in the national economy has been met by private companies, which puts the affordability of energy prices at risk in the long term. To avoid this alleged risk, the bill proposes that CFE become a single state agency without vertical or horizontal separation.

JOSE What are privately owned electric generation companies doing about all this?

ARIEL The protection of investor rights has national and international dimensions. At the national level, investors can promote Amparos, a legal process to challenge the legality of actions and protect constitutional rights (habeas corpus equivalent); from the international perspective, investors are looking into the possibility of invoking the legal protection provided under bilateral investment and free trade treaties and agreements. These treaties provide strong protections for investors suffering from indirect expropriation, and the investor claims will have to be assessed by an arbitral tribunal.

One last thing to consider is that there are efforts by various political parties in Congress to revise the proposed reform, and there are ongoing discussions between Mexico and its principal trade and investment partners. I hope that the government would reconsider its position or at least enter into an open process to allow a legislative reform that would allow CFE to become more efficient and financially sound without undermining the benefits that the private sector would bring from the financial and technological perspectives.

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Global Mining Review

GUEST COMMENT

IAN COLES
PARTNER AND HEAD OF
MAYER BROWN'S GLOBAL
MINING GROUP



In 2010, the New York Times excited the mining world with highlights from the report of the US Geological Survey to the effect that the value of mineral wealth in Afghanistan was estimated to be almost US\$1 trillion. That included 60 million t of copper, 2.2 billion t of iron ore, and 1.9 million t of various rare earth elements. Subsequent surveys have put the value at as much as US\$3 trillion.

The problem, of course, was that it was all, and largely continues to be, in the ground, and minerals in the ground in a country as challenging as Afghanistan have minimal value. Nevertheless, the report caught the eye of the Task Force for Business and Stability Operations (TFBSO), a body funded by the US Department of Defense, which experienced some

success in Iraq in promoting economic development in a post-conflict environment. TFBSO worked for approximately five years in assisting the Afghan government to build technical, financial, and legal structures that would facilitate the development of a mining industry and encourage foreign investment in the same.

What became of that initiative? Very little is the answer. Certainly, some capacity building in various government departments, the development of a system for competitive bidding in connection with the award of mining licenses, and, at one stage, the possible award of four licences with overseas investors. The TFBSO team oversaw the bidding for the Badakshan, Balkhab, Shaida, and Zarkashan licence blocks. Preferred bidders were selected and development contracts negotiated and agreed. Transparency following the process was somewhat limited, but what is certain is that it did not lead to the development of those projects.

Beyond basic artisanal mining for gemstones there has been the occasional muted success story. CENTAR Ltd, founded by Ian Hannam, was able to get a gold project underway, however that was effectively taken over by local militants. Other potentially huge projects, such as Hajigak iron ore and Mes-Aynak copper, were never developed in any way. In the case of Mes-Aynak, this was largely a function of its location in a particularly challenging security environment. China has been an early starter there, having signed a contract to develop the project, but on terms and conditions which NGOs and other international observers felt could never support commercial development – China would have to return to the table. Illegal mining has also always been rampant.

Perhaps President Ashraf Ghani was correct when he said: “we are at risk of the curse of plenty, [the] curse of resources.” To many these would appear to be crocodile tears. The historic absence of transparency in the conduct of the Afghan government has hardly endeared itself to potential foreign investors. Those investors have options, and Afghanistan has never presented itself as an option to be preferred.

The recent political decision to exit Afghanistan and the resultant Taliban surge effectively puts paid to any significant investment from NATO block countries. What an irony that at the time that the US and Europe were publishing policies which detailed the threat to their economies from restricted access to strategic minerals, Afghanistan, nominally under NATO stewardship, was sitting on one of the world's biggest hauls of rare earths, as well as potentially significant lithium deposits.

So, what now? While it is still early days, geo-political analysis would suggest China, Russia, and India will play ball with a Taliban government. Even if NATO countries did want to be in the game, it is now unlikely they will be able to play on a level playing field with any of these countries. So very little gained over the past decade, but all to play for over the next one. Groundhog Day – Afghanistan style. **GMR**

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Kola Sulaimon/AFP

All you need to know about Nigeria's new mining law

While amendments to the 2007 law will not be transformative in terms of attracting investment and generating revenues, they will go a long way in cracking down on illegal mining in the country. Here is everything you need to know.



**Shoshana
Kedem**

December 17th 2021
Nigeria
Energy & Resources

In November, the Nigerian government unveiled plans to revise its crucial mining law, the Nigeria Minerals and Mining Act (NMMA).

The outdated law, which hasn't been updated since 2007, is accused of stifling growth and development in the nation's undeveloped mining sector.

Mining currently generates just 0.3% of GDP and leaves the country scrambling to import minerals, like salt and iron ore, that could be produced domestically. This compares to the oil and gas sector that generates around 65% of revenues.

The amendments are seen as the finishing touch to five years of government measures to make mining a means of weaning the country off petrodollars.

"There is definitely an interesting story behind the mining sector in Nigeria," says Kwadwo Sarkodie, a partner at legal firm Mayer Brown International.

Before the brutal civil war between 1967 and 1970 there was an active mining sector in Nigeria, and the country was a significant exporter of certain mined minerals including coal and tin.



“That all changed in the 1970s partly as a consequence of the oil boom, and to a large extent the oil sector crowded out the mining sector. There were various mines that were closed as a consequence of the civil war and they never reopened,” says Sarkodie.

“The 2007 law isn’t completely outdated, and broadly chimes with comparable legislation in other jurisdictions.”

Nigeria passed the 2007 law deregulating the mining of solid minerals in a bid to attract much needed private investment to develop the underperforming and neglected sector. At the same time, the outgoing government of president Olusegun Obasanjo awarded a flurry of mining leases and exploration licences to multinational mining companies who were guaranteed incentives and tenure security under the new law.

What Are The Proposed Changes To Niberia Minerals And Mining Act (NMMA)?

One of the key changes is that the law will give local governments the impetus to crack down on illegal mining by devolving responsibility from the federal to the state level of government.

“The 2007 act is very federal government-centric, so essentially the powers and ownership of mineral rights under the act rest with the federal government,” Sarkodie explains.

Under the amendment, power and revenues will be shifted to from the regulating body, the Nigerian Mining Cadastral Office (MCO), which is very much an arm of the federal government, to the local level, giving both the local community and the state government incentives to abide by and enforce the rule of law in the sector.

“The states can increase their own revenue from legal and licenced mining, and that increases their incentive to combat illegal and unlicensed mining,” says Sarkodie.

“And if local communities see that their own state is benefiting economically, again that provides further reassurance that they are benefitting from the mines,” he adds.

As a federally governed nation the issue of state control versus federal control is one that crops up repeatedly in the Nigerian context, Sarkodie says.

“This is potentially an opportunity to shift that balance to the mining sector from the federal government to the state government, and hopefully address some of the underlying issues driving the illegal mining.”

“Those are the two things that the new act is trying to rebalance and trying to address. The old act wasn’t completely unsuitable for purpose, but it clearly wasn’t providing the conditions needed to develop the sector.”

Why is illegal mining a problem?

Nigeria’s north, especially Kaduna, Katsina, Kebbi, Kogi, Nasarawa, Niger, Plateau and Zamfara states, are particularly hard hit by the blight illegal mining. An estimated 80% of mining in these areas is conducted illegally on an artisanal basis, involving over two million people who depend on it for survival.

Previous government efforts to crack down on illegal mining in northern Nigeria have failed, while the phenomena continues to provoke two worrying trends, says NGO ENACT Africa.

One is the trade of illegally mined gold in exchange for weapons, and the other is the use of women and girls in these illicit activities.

Unregulated mining also stokes environmental issues in these areas, such as water pollution, deforestation, poor soil fertility and limited access to land for agriculture productivity.

“One of the reasons that it’s considered that illegal mining is so high is that the state government don’t really have an incentive to take significant steps to stop it because its taking place in the states themselves,” Sarkodie says.

Will it be a game changer for attracting investment and driving resource revenues?

“No, on its own I don’t think it has the potential to be transformative,” Sarkodie says.

There are other priority areas such as security, power, transport, infrastructure and the competing energy sector that will continue to hold the mining sector back, regardless of the new terms of the act.

“One principal challenge is the size and well-established nature of the oil and gas sector in Nigeria, which is many times bigger. It does activate essentially a magnet for investment and talent and government attention due to its sheer size. That does have the effect of crowding out the mining sector,” Sarkodie explains.

“The second big challenge is transport infrastructure, that currently restricts access to mineral reserves and mines from internal and external export markets. In terms of where these mineral reserves and mines are located, and the places internal or export markets for those are positioned, there are transport restrictions and shortcomings. So improvements in transport infrastructure such as roads, rails and ports are going to need to be improved to fully realise the potential of the mining sector.”

Another challenge revolves around the limitations of power generation and capacity in the region.

“Mining is very power-intensive and so the reliability of supply is not insurmountable, but it does just add an additional cost and potential hurdle. And finally there is a security situation in northern Nigeria in an area where many mineral deposits are understood to sit. With ongoing concerns surrounding security there remain additional hurdles to large-scale new investment in the sector.”

When will the new law come into force?

To put the process into context, the Petroleum Industries Bill took about 20 years to come into force and become the [Petroleum Industries Act](#), Sarkodie says.

“A draft might be well developed before parliament in bill stage, but it doesn’t necessarily mean that its going to come into force in the medium term.”

What are next steps?

The bill is currently before the House of Representatives (Nigeria’s lower house) and will then pass before the Senate (the upper house) before being enacted into law.

Why is it happening now?

Gold mining can offer an effective hedge against swings in oil prices, especially as investors and policymakers adapt to the global energy transition.

“When oil prices dip that does focus minds of Nigerian economists and policymakers on the need to focus on other sectors,” says Sarkodie.

“There is a broad recognition that its beneficial for Nigeria to diversify its economy, away from such a high-level of reliance on the oil and gas sector.”



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BAND 2

Construction, Projects & Energy:
Mining & Minerals

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*

BAND 2

Banking & Finance, Project Finance



49 LAWYERS RANKED

SPOTLIGHT TABLE Projects

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16 LAWYERS RANKED

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Projects & Energy: Mining & Minerals

RANKED IN Projects & Energy



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We continue to add to the breadth and depth of our experience across asset classes and transaction structures – we believe no other law firm has an infrastructure and PPP practice of comparable range, depth and diversity. Congratulations to the team!



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US/Canada Project Finance
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JOSEPH SELIGA

Midwest Trailblazer 2021
The American Lawyer



NADAV KLUGMAN

Energy & Environmental Trailblazer 2021
The National Law Journal



PROJECT FINANCE

Gilcrease Expressway
West PPP
\$260 million financing



PUBLIC PRIVATE PARTNERSHIP

The New York State Thruway Authority
Service Area, \$269 million financing of
tax-exempt PABs



David Narefsky was named a 2018 "Dealmaker of the Year" by The American Lawyer, recognizing his work on financing the \$2.1 billion rehabilitation of the Chicago Transit Authority's (CTA) Red/Purple mass transit lines.

In the Fall of 2021, David and other members of the Mayer Brown Projects and Infrastructure team had the opportunity to tour the project under construction with Ted Gibbs, former Senior Counsel with The Walsh Group, and currently General Counsel of Indiana Toll Road Concession Company LLC.

Pictured from left to right: Mitch Holzrichter, Stephanie Wagner, David Narefsky, Joe Seliga, and Ted Gibbs.

Projects & Infrastructure Women in Big Law



These outstanding women have been recognized by legal directories and industry journals for their significant contributions within the legal industry. Congratulations to Mayer Brown's Projects & Infrastructure Women in Big Law.



KIRSTI MASSIE

Transition Economist's
TE100: WOMEN OF THE ENERGY TRANSITION
inaugural list of the 100 women leading the energy transition.

TE100: Technology & Innovation



GABRIELA SAKAMOTO
"TOP 100 FEMALE LAWYERS"



REBECCA SEIDL
"TOP 100 FEMALE LAWYERS"

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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OCTOBER 26, 2021

Fritz Lark moderates Mission Critical Broadband panel at 17th Annual US P3 Infrastructure Forum

On October 26, 2021, Fritz Lark, a partner in Mayer Brown's Corporate Practice and Projects & Infrastructure group, moderated the "Mission Critical Broadband" panel at the 17th annual US P3 Infrastructure Forum. Panelists included Nate Denny, Deputy Secretary of Broadband and Digital Equity of North Carolina Department of Information Technology; Kanan Joshi, Head of Digital Infrastructure of DIF Capital Partners; Ben Bawtree-Jobson, CEO of SiFi Networks and Bryan Kendro, Senior Program Management Consultant of RS&H. The panel addressed how broadband projects are evolving within the P3 procurement model including the risks and opportunities for investors and the US transition from antiquated copper networks to fiber optics. A few key highlights from Fritz's panel discussion included:

- Opportunities for project financiers and equity investors in fiber-to-the-home projects.
- Role of infrastructure funds in rural broadband projects .
- Pandemic's impact on broadband supply and investment.

NOVEMBER 15, 2021

Joe Seliga moderates discussion on "Deconstructing DBFOM and Putting it Back Together Again" at United States Infrastructure Law Forum in Marina del Rey

On November 15, 2021, Joe Seliga, co-head of Mayer Brown's Projects & Infrastructure group moderated a discussion entitled "Deconstructing DBFOM and Putting it Back Together Again" at the United States Infrastructure Law Forum in Marina del Rey, California. Joe, who is the Founding Chair of the event, also served on the Steering Committee for this year's Forum. The Forum brings together nearly 40 in-house, public sector and law firm attorneys and other professionals working across United States infrastructure. The discussion touched on topics including:

- Risk allocation in US DBFOM infrastructure projects.
- Movement toward alternative delivery models, including pre-development agreements, progressive design-build agreements and alliance models.
- Impacts of recent market developments, including those related to the COVID-19 pandemic.



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NOVEMBER 17, 2021

Paul Astolfi moderates Power Transition: the Path to Net Zero at Proximo US Power & Renewables Finance Conference in Austin

On November 17, 2021, Paul Astolfi, co-head of Mayer Brown's Global Projects & Infrastructure group, moderated the "Power Transition: the Path to Net Zero" panel at Proximo's US Power & Renewables Finance conference in Austin. Panelists included Carlos Barrera, Chief Executive Officer of Atlas Renewable Energy; Ben Droz, Principal - Infrastructure of KKR; Andrew Hoffman, Principal of Carlyle and Marisa C. Sweeney, Director of Generate. The panel addressed financing trends and investor challenges for deploying capital during the energy transition. A few key highlights from Paul's panel discussion include:

- Government-led demand and action for Net Zero and impact on investors
- Gas assets – distribution, midstream and generation – as part of the energy transition
- Challenges with emerging technologies/infrastructure e.g. carbon capture, hydrogen, etc

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NOVEMBER 17, 2021

Eric Pogue moderates Wind Infrastructure panel at Proximo US Power & Renewables Finance Conference in Austin

On November 17, 2021, Eric Pogue, a partner in Mayer Brown's Global Projects & Infrastructure group, moderated the "Wind Infrastructure" panel at Proximo's US Power & Renewables Finance conference in Austin. Panelists included Erick Araujo, Head of Renewable Portfolio Management of Engie NA; Samuel Eaton, Senior Vice President Offshore Development (USA) of RWE Renewables; Jesse McDougall, Head of Export Finance, North America of UK Export Finance and James Pool, Commercial Director of EnBW. The panel addressed the role of the Bureau of Ocean Energy Management (BOEM) in offshore wind and the future of floating wind power, as well as financing structures, interconnection and logistics. Onshore wind was also discussed with respect to new entrants, namely those related to crypto and data processing.

For more information on this panel, please visit [Proximo Weekly: Austin wind takeaways](#).

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 Lizzy Lozano, Business Development Manager, Projects & Infrastructure llozano@mayerbrown.com.

MONTH	EVENT	LOCATION
March 3	Americas Digital Infrastructure Finance	New York, NY
March 3	North America Awards Ceremony	New York, NY
March 6-9	Solar + Wind Finance & Investment Summit	Scottsdale, AZ
March 9	Latin America Awards Ceremony	Miami, FL
March 10-11	Latin America Energy & Infrastructure Finance	Miami, FL
March 30	Infrastructure Investors Forum Americas	New York, NY
May 9-10	121 Mining Investment Cape Town	Cape Town South Africa
May 24-25	Financing America's Infrastructure	Nashville, TN
June 8-9	European Infrastructure & Renewables Finance	Lisbon, Portugal
October	Latin America Energy & Infrastructure Finance	Miami, FL
November	US Power & Renewable Finance	Austin, TX
November 9-11	United States Infrastructure Law Forum	Miami, FL

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