



REARVIEW MIRROR 2021: TRADITIONAL ENERGY REBOUNDS AND INCREASED ENERGY TRANSITION

EDITOR'S NOTE

To Our Clients and Friends,

Each year we take the opportunity to review significant developments in the worldwide energy industry for the previous year and offer our views on what these developments may mean for the coming year.

As we reflect on 2021, we look back on a rebound year for traditional energy which provides hope that a return to normalcy from COVID-19 and its effects is on the horizon. While the beginning of the year was marked by business, travel and social distancing restrictions aimed at lowering the transmission of COVID-19, many jurisdictions lifted or lessened these restrictions as vaccine availability became widespread. Consumer confidence and spending rose as restrictions were lifted and spurred economic activity. In particular, the energy industry saw crude oil demand roar back to over \$80 per barrel in November after once turning negative in April 2020. Natural gas witnessed a spike in price during February as Winter Storm Uri ravaged the Texas power grid and left many without power for an extended period. Even when prices stabilized, natural gas saw a steady price increase all the way through October, with Henry Hub spot prices rising to over \$5 per mmbtu. This economic resurgence for the energy industry is due in no small part to society's response to COVID-19. The vast availability of vaccines and boosters has stymied investors' fears that further COVID-19 variants could send society back into lock downs, giving hope that a path out of the pandemic is soon to come.

A major theme for the energy industry last year was the increasing momentum for the energy transition. Traditional fossil fuel-based companies faced increasing pressure to reduce their carbon emissions and align with carbon neutral goals. At the same time, there was a strong increase in investor focus on environmental, social and governance ("ESG") practices and disclosures, as well as investor demand for ESG-focused investments. As a result, large amounts of capital were reallocated toward investments seen as aiding the energy transition, with a dramatic example being over \$600 billion invested in ESG-focused funds worldwide through November 2021. Adding fuel to this investment fire was the proliferation in investor acceptance of, and demand for, initial public offerings of special purpose acquisition companies ("SPACs"), or blank-check companies, whose stated purpose was to raise capital to search for acquisition targets in the energy transition space. The number of SPAC IPOs announced in 2021 soared, even in the face of increased scrutiny from regulators and lawmakers. In March, the Division of Examinations of the Securities and Exchange Commission ("SEC") announced its 2021 priorities included an enhanced focus on climate and ESG-related risks, which was followed shortly by an announcement from the Division of Enforcement of the creation of a Climate and ESG Task Force. This task force, comprised of members from SEC headquarters and regional offices as well as enforcement specialized units, is charged with developing initiatives to identify ESG-related misconduct and potential violations, with an initial focus on material climate risk disclosure gaps or misstatements being made under the SEC's existing disclosure rules.

2021 also saw the new Biden presidential administration take office in January, bringing with it a focus on renewable energy and incentives for clean energy technologies. President Biden set a target of 80% clean power by 2030, along with the goal of a fully carbon-free electricity grid by 2035. In order to achieve these goals, the President has promised to spur investment in, and the deployment of, clean energy technologies. Lawmakers have also proposed legislation been proposed to increase incentives for investment in clean energy technology. In November, the House of Representatives passed The Build Back Better Act ("BBBA") that would extend and expand clean energy tax credits including a direct pay option for the commercial investment tax credit. The BBBA has faced stiff resistance in the Senate, but if ultimately passed in any form, the BBBA would be a significant win for the Biden Administration's energy transition goals.

While we expect the demand for ESG-focused investments to continue in 2022 and beyond, whether that will include the continued stream of SPACs seen in 2021 is difficult to predict. Regardless, we expect companies with a compelling energy transition story to see tailwinds in the market while traditional fossil fuel-related energy companies will continue to seek ways to contribute to the energy transition and reduce their emissions, in order to allay concerns of the investment community and attract capital going forward. However, the industry now faces new challenges with Russia's invasion of Ukraine and the response of governments that are sympathetic to Ukraine which have increased the cost of oil and natural gas globally.

We appreciate the trust that you place in us to handle your legal matters and wish you further success in 2022.

Baker Botts Energy Team

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POWER & UTILITIES

North American Power & Utility Sector and Generation Assets

2021 saw the North American economies begin to emerge from the recession induced by the COVID-19 pandemic. This recovery had a significant impact on the power and utility sector, with the demand for electricity across the U.S. recovering most of what was lost in 2020. Natural gas lost ground for the first time in many, many years, due to the significant increase in the cost of natural gas. Renewables continued their steady ascent in the generation mix, while coal and petroleum made a comeback in 2021. Despite the recovery, U.S. utility stocks couldn't keep up with the recovery seen in the overall economy. With regard to retail consumers however, the average nominal electricity price rose at the fastest rate since 2008. Although the nominal average price was the highest on record, retail electricity prices, when adjusted for inflation, have been slowly declining over the last two decades and were at the lowest level since before 2006.

All of the above translated into a surge of deal volume and value in the power and utility M&A sector, which was still

significantly lower than were seen in 2016, a record year for U.S. utility mergers and acquisitions. Environmental, social and governance ("ESG") initiatives continued to drive strategy and deal activity, while the sector saw an increased interest in special purpose acquisition companies (SPACs) in 2021.

In 2022, the challenges remain for the power and utility sector, meeting ESG initiatives, ensuring reliability and resiliency of the grid, and maintaining security through increased cybersecurity measures, all while keeping costs down. To accomplish this task, the industry will likely continue to "decarbonize, digitalize, and decentralize." Capital expenditures will likely remain high and utilities will need to find ways to finance such expenditures while awaiting corresponding changes to their rate base. Renewable energy generation will also continue to take market share in the power generation mix.

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Status of Key Environmental Regs Affecting Energy Infrastructure

In 2021, the Biden Administration undertook a series of regulatory actions to review, reconsider, and reverse certain high-profile Trump-era environmental rollbacks. For pipelines, transmission lines, terminals, and other energy infrastructure projects, these reversals posed the risk of longer project timelines and permitting hurdles.

Some of the key federal regulatory changes potentially impacting energy infrastructure in the United States include: (1) rollbacks of Trump-era rules that narrowed the application of various provisions of the Clean Water Act ("CWA"); (2) the proposed restoration of several provisions of the National Environmental Policy Act ("NEPA") that would grant federal agencies greater discretion in developing project alternatives, restore federal agency discretion to adopt NEPA procedures that are more stringent than the Council on Environmental Quality's regulations, and require agencies to consider direct, indirect, and cumulative effects of major federal actions; (3) and proposed rules that would rescind Trump-era changes to the Migratory Bird Treaty Act and the Endangered Species Act.

Looking ahead, 2022 will be a consequential year for regulatory changes impacting energy infrastructure projects. Among other things, the Biden Administration is wrestling with objectives to restore more expansive environmental protections without compromising clean energy goals, which will necessitate an accelerated build-out of transmission lines and other new infrastructure.

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Electricity (Transactional)

UPSTREAM

U.S. Upstream Review and Outlook

Deal activity increased in 2021 as vaccine availability and loosened economic restrictions drove price rebounds, leaving industry professionals relatively optimistic heading into 2022. Upstream oil and gas companies continued to emphasize return of capital and free cash flow generation in response to investor demands for fiscal discipline, limiting traditional capital sources. Energy capital investment remains focused on investments in the energy transition.

M&A in the upstream sector in 2021 was characterized by multi-billion-dollar, low-premium consolidations of gas-focused public companies. The 2022 outlook for the upstream industry is cautiously optimistic given projected demand increases, despite the continued uncertainty surrounding new variants of COVID, vaccine efficacy for such variants and future governmental restrictions. Natural gas and LNG exports are also expected to benefit, particularly for U.S. operators given the tensions in Europe over Russia's actions in Ukraine, although it remains to be seen how the LNG export market will be impacted. The trend of consolidation will likely continue to drive M&A activity and capital markets access will be driven by robust free cash flow models.

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MIDSTREAM AND LNG

2021 Master Limited Partnership (“MLP”) Update

The steady rebound of oil and natural gas prices in 2021 from their lows in April 2020 led to solid market returns for master limited partnerships. In 2021, the Alerian MLP Index generated its highest total return in the past 12 years (up 40%), outperforming the S&P 500 index (27%).

As a result, merger and acquisition activity increased significantly during 2021. The MLP and midstream C-Corp sector saw a total of 44 transactions with a disclosed value of \$53.8 billion in 2021, up from 32 transactions with a disclosed value of \$19.5 billion during the prior year.

MLPs, however, continued to struggle to raise debt and equity capital in 2021. Debt market activity for MLPs and midstream C-Corps was down year-over-year, with 29 deals in 2021 (compared to 43 in 2020) and gross proceeds decreasing to \$29.2 billion in 2021 from \$50.2 billion in 2020. Traditional equity capital markets activity for MLPs and midstream C-Corps remained low, with only eight public equity transactions in 2021 raising a total of \$1.9 billion.

With oil and natural gas prices increasing in the first quarter of 2022, MLPs may seek to become more active in the capital markets. We also expect to see continued consolidation of MLPs and the midstream industry in 2022.

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2021 Trends in the LNG Industry

The LNG industry rebounded from the global demand shock experienced in 2020 and began to navigate the “new normal” from wellhead to burner tip.

Key Takeaways

- Surging demand resulted in commodity shortages and corresponding volatility in the natural gas and LNG markets.
- Despite setbacks faced by certain LNG projects, many developers pressed forward with new projects due to forecasted increases in energy demand.

LNG sellers responded to growing market pressure for lower-carbon energy by seeking ways to reduce the carbon footprint of LNG.

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Projects: LNG



MIDSTREAM REGULATORY AND TAX

2022 First Look – New FERC Policies on Construction of Natural Gas Projects and GHG Emissions

On February 17, 2022, the Federal Energy Regulatory Commission voted 3-2 to adopt revisions to its 1999 Certificate Policy Statement and to publish an Interim Greenhouse Gas Emissions Policy Statement.

The Certificate Policy Statement sets forth the framework that FERC applies in evaluating applications for the construction of new interstate natural gas facilities, which includes new construction and expansions of interstate pipelines and storage facilities, including Natural Gas Act Section 7(c) pipelines interconnecting liquefied natural gas export terminals and liquefaction facilities to the interstate

pipeline grid. Under the revised Certificate Policy Statement, FERC will consider a broad range of public benefits, including (i) the need satisfied by the project, (ii) whether the project displaces higher pollution generation sources, (iii) whether the project facilitates the integration of renewable resources and (iv) whether the project creates significant jobs or tax revenues.

The Interim GHG Emissions Policy Statement sets forth the framework by which FERC will evaluate climate change impacts from proposed natural gas infrastructure projects under the NGA and NEPA. The Interim GHG

Policy Statement will apply to both proposed LNG terminals authorized under Section 3 of the NGA and interstate natural gas pipelines and storage facilities authorized under Section 7 of the NGA. Under the Interim GHG Policy Statement, the measurement of GHG emissions will include those emissions that

are “reasonably foreseeable and have a reasonably close causal relationship” with the proposed project.

FERC will apply the revised policy statements in pending and new application proceedings.

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New Safety and Environmental Regulations Impose Burdens on All Midstream Operators (Even if Previously Exempt!)

In 2021, new rules were issued and proposed to address safety and environmental issues concerning the midstream industry. On November 2, 2021 PHMSA issued a final rule expanding federal oversight, which now includes certain major transmission and distribution pipelines, to also include all onshore gas gathering pipelines.¹ With this rule, PHMSA states that it is seeking to close a “regulatory gap.”² The agency notes that there are more miles of unregulated natural gas gathering lines than regulated transmission lines—and this rule aims to bring the more than 400,000 miles of such gathering lines under PHMSA oversight.³ The final rule requires operators of all onshore gas gathering lines to report incidents and file annual reports with PHMSA.⁴ Also, the final rule creates a new classification of regulated gathering line known as Type C.⁵

Further, the EPA released a proposed rule on November 2, 2021 to impose additional restrictions on emissions of methane, or natural gas, from new and existing facilities owned by companies in the production, gathering, processing, transmission and storage segments of the oil and gas sector.⁶ This is the first time such restrictions would be extended to existing facilities.⁷ This proposed rule is not entirely new; the Obama Administration EPA promulgated a New Source Performance Standards (“NSPS”) rule in 2016 addressing methane emissions from new, modified, and reconstructed facilities in the oil and gas sector, which the Trump Administration EPA rescinded in 2020.⁸ This proposed rule reintroduces the 2016 methane NSPS for new facilities and extends it to regulate existing facilities.

READ THE FULL ARTICLE.

¹ Final Rule: Safety of Gas Gathering Pipelines: Extension of Reporting Requirements, Regulation of Large, High-Pressure Lines, and Other Related Amendments – Federal Register Submission | PHMSA (last updated, November 2, 2021); Gas Gathering Final Rule Submission – 11.2.2021.pdf (dot.gov), 9.

² *Infra* note 2, at 27.

³ *Id.*

⁴ *Id.* at 9.

⁵ *Id.* at 10.

⁶ Proposed Rule: Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review – Federal Register Submission | EPA, Docket No. EPA-HQ-OAR-2021-0317 (last updated November 15, 2021) (“Proposed Rule”); see *EPA Proposes New Source Performance Standards Updates, Emissions Guidelines to Reduce Methane and Other Harmful Pollution from the Oil and Natural Gas Industry* | US EPA, Nov. 2, 2021 (last visited Jan. 23, 2022) (“EPA Reference Page”); see also *New EPA Methane Regulations for Oil and Gas Companies Proposed*, National Law Review, <https://www.natlawreview.com/article/epa-proposes-new-methane-regulations-oil-and-gas-facilities> (last visited Jan. 23, 2022) (“New EPA Methane Regulations”).

⁷ See EPA Reference Page; see also *New EPA Methane Regulations*.

⁸ *Id.*





Midstream Use of Waste Heat to Generate Power Gets an Investment Tax Credit

Compressors used by midstream companies to move gas through their pipelines also produce heat, which usually is allowed merely to dissipate and thus is a “wasted” source of potentially useful energy. The electricity so produced is clean or green power because no incremental combustion of fossil fuels is associated with its production. Effective in 2021, there is a federal tax credit for the installation of waste heat recovery property, meaning that midstream companies have the opportunity to improve their sustainability or “ESG” profile by producing green power while offsetting a portion of the associated capital expenditures with a tax credit.

At the end of 2020, Congress enacted the Consolidated Appropriations Act, 2021, Pub. L. No. 116-260 (Dec. 27, 2020), in which it finally recognized the green nature of waste heat projects by adding, beginning in 2021, “waste energy recovery property” to the list of property eligible for the energy tax credit.

The amount of the credit is equal to the taxpayer’s basis in such property multiplied by:

- 26% for any waste energy recovery property the construction of which begins before 2023; and
- 22% for any waste energy recovery property the construction of which begins in 2023

Midstream gas companies, especially those companies feeling either management or shareholder pressure to “go green,” are looking at the opportunity offered by the waste energy recovery property tax credit. The potential to use the credit to reduce the cost of initiatives a company may feel compelled to undertake, as well as the possibility of an even further enhanced credit if proposed legislation is enacted, make this an exciting tax incentive to consider.

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New Hydrogen and Carbon Capture, Utilization & Storage Incentives for Midstream Infrastructure

In November 2021, the midstream industry received a large future mandate with the enactment of the Infrastructure Investment and Jobs Act (the “IIJA”). The \$1.2 trillion infrastructure bill contains billions of dollars of appropriations for research and development, grants, and other programs to advance the United States’ burgeoning carbon capture and clean hydrogen industries. Included in these appropriations is funding for new and existing midstream infrastructure that will play an essential role in the growth and development of the midstream industry, and that will ensure the midstream industry is a key player in the energy transition.

In the IIJA, Congress affirmed its investment in carbon capture, utilization, and storage (“CCUS”) and the importance of CCUS to the U.S. economy. In the IIJA, Congress provides that federal support—and incentives for state support—by creating programs and incentives

to assist CCUS companies and the midstream industry to overcome these barriers to deployment.

The IIJA also invests heavily in the development and expansion of the clean hydrogen industry in the United States through the establishment of national standards, federal grants and incentives, and other programs. The midstream industry should pay attention to these incentives, especially where companies can find investment for midstream infrastructure development and repurposing, including retrofitting existing pipeline and storage facilities to enable transportation, storage, and delivery of clean hydrogen.

READ THE FULL ARTICLE.



CHEMICALS/REFINING



2021 Trends Among U.S. Pureplay Refiners

Although 2021 began with uncertainty brought on by the COVID-19 pandemic, lower COVID-19 cases spurred a rebound in demand for refined products. As demand recovered and refining margins improved, refiners began to deploy the cash that had been stockpiled in 2020.

The turbulence of 2020 caused refiners to establish short-term credit facilities and issue near-term debt securities in the capital markets. As business prospects recovered and commodity prices and margins began to boost cash flows in 2021, however, U.S. refiners were willing to deploy cash to refinance or eliminate debt.

Another key theme for U.S. refiners in 2021 was a renewed emphasis on returning capital to shareholders through dividends and share repurchase programs.

The ESG movement has not overlooked U.S. refiners, and we expect refiners to continue investing in their “green” business segments during 2022. In particular, demand for renewable diesel is expected to increase.

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Strong 2021 Pushes Chemicals M&A Market to Potentially Reach Pre-Pandemic Levels in 2022

Mergers and acquisitions activity in the U.S. chemical industry slowed in 2020 versus 2019, both in terms of the number of deals and value. Many industry observers are predicting that the chemicals M&A market is poised for a major rebound in 2021 following a pandemic-hindered 2020 as business confidence returns and central banks keep financing markets buoyant.

In 2020, the U.S. chemical industry reeled under the effects of global manufacturing slowdown, protectionist trade policies and uncertainties surrounding the U.S. elections. However, the industry benefited from higher demand for inputs that are used to make products (including personal protective equipment, plastic packaging, disinfection and sanitation products) used in the global fight against the pandemic. The U.S. chemical

industry started to recover in the third quarter on the back of an improvement in major end-use markets and continues to take hold. The outlook for the next year is positive backed by solid fundamentals.

Positive news on the vaccine front, continuing central bank policies boosting liquidity and a new US Administration that could ease global trade tensions are all giving encouragement to the M&A market. It seems that transaction multiples have held up well during the pandemic while public valuations for chemicals companies have seen robust recoveries in anticipation of a global economic recovery post-coronavirus.

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Superfund Excise Taxes on Chemicals Revived

The Infrastructure Investment and Jobs Act (“Infrastructure Act”), signed by President Biden on November 15, 2021, has revived and doubled the long-expired “Superfund” excise taxes on selected chemicals.

Taking effect from and after July 1, 2022 through December 31, 2031, the Infrastructure Act applies an excise tax to the sale or use by the manufacturer, producer or importer of 42 specified “taxable chemicals.” The tax rate varies depending upon the particular chemical, but all the rates are double the rates that applied before 1996.

There are several exceptions to the imposition of the tax, including for certain chemicals to be used as a fuel or in the production of fuel, fertilizer or animal feed. There is also an exception for organic chemicals while part of an intermediate hydrocarbon stream; the sale of the intermediate hydrocarbon stream will be excepted

if the seller has complied with applicable registration requirements. Exported chemicals are also not subject to the tax.

The Infrastructure Act also reinstates the excise tax on the sale or use by an importer of certain “taxable substances” that were produced from the 42 “taxable chemicals” described above. The applicable rates are the same as the rates described above for taxable chemicals, based on the type and amount of taxable chemicals used in production of the substance. The tax on substances is subject to exceptions similar to those for taxable chemicals to be used as fuels or in the production of fertilizer or animal feed.

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THE RENEWABLE ENERGY TRANSITION

2021: Solar Volatility and Batteries to the Moon

Following robust years of growth, solar projects as a whole experienced pricing volatility in 2021, especially in the latter half of the year. This volatility was largely driven by an intertwined web of congested supply chains, U.S. government restrictions and opportunistic players in the transportation and manufacturing markets. Nonetheless, solar installations in the aggregate remained relatively healthy across several segments of the U.S. market and both the development and investment communities continue to recognize solar as a staple asset in the energy transition during 2022 and beyond.

Additionally, the costs of constructing solar has risen sharply over the last year, namely because of the significant increases in the costs of solar panels. The average pricing for panels in 2021 was approximately 18% higher than in 2020 and these panels serve as the

centerpiece of most utility-scale projects in the U.S.⁹ Other critical equipment components of solar projects, such as trackers and inverters, also experienced significant price jumps due in part to a gridlock in the upstream supply chain initially driven by the effects of COVID-19 and its variants.

Battery storage also played a pivotal role in 2021, with many industry leaders recognizing battery storage as a key component of the energy transition. Utilities have become a major player in battery storage as they seek to reduce peak demand on their transmission and distribution systems. We expect battery storage to continue to expand and believe favorable legislation expanding tax credits to batteries would drive this growth further.

READ THE FULL ARTICLE.

The Hydrogen and CCUS Industries: 2021 A Year in Review

In 2021, the low-carbon hydrogen and carbon capture, use and storage (“CCUS”) industries continued to gain momentum as project sponsors advanced existing projects and announced many new projects. At the same time, policy makers took steps to provide greater incentives to develop the low-carbon hydrogen and CCUS industries. Hydrogen and CCUS project development accelerated in 2021 and several large projects under development at the turn of the year continued to progress, including Air Products’ green hydrogen production facility in Neom, Saudi Arabia. Summit Carbon Solutions announced its plan to develop the Midwest Carbon Express, the world’s largest carbon dioxide pipeline that would transport carbon emissions from the Midwest to North Dakota for permanent underground storage.

Clean hydrogen received legislative and policy support in the United States and abroad. In the United States, the \$1 trillion Infrastructure Investment and Jobs Act (“IIJA”), which President Biden signed into law in November 2021, supports the commercialization of clean energy technologies through significant appropriations, including \$8 billion for clean hydrogen technologies. The Build Back Better Act, which passed the House of Representatives in November 2021, but stalled in the Senate, was even more ambitious.

Governments in Europe and the Asia-Pacific region also supported CCUS in 2021. The European Union announced its award of €1.1 billion into seven large-scale projects, four of which are CCUS projects, under the Innovation Fund. In addition, Australia announced several CCUS

initiatives in 2021, including \$250 million in funding for carbon capture and storage hubs.

The market, legislative and regulatory developments in the clean hydrogen and CCUS industries demonstrate the growing importance of these industries in the energy

transition. As technologies advance, and more legislative and regulatory initiatives are passed, increased investment in the hydrogen and CCUS sectors seems likely.

READ THE FULL ARTICLE.

Clean Energy Technology – Increased Incentives in Energy Transition

Legislation continues to move forward to increase incentives for investment in clean energy technology to combat the climate crisis. The Build Back Better Act (“BBBA”) extends and expands clean energy tax credits, including a direct pay option for the commercial investment tax credit. The BBBA, along with the bipartisan infrastructure bill, aim to make electric vehicles and charging infrastructure more accessible for all consumers, as the infrastructure bill includes investing \$7.5 billion in publicly-available chargers and the BBBA extends tax credits in order to lower the cost of electric vehicles.

The incentives for investing in clean energy technology are borne out of more than just legislative encouragement. The industry and underlying technology have matured in a way that make such investment less risky than it was a decade ago. There is also increased opportunity in

emerging climate tech startups that are focusing on using multiple industries to decarbonize the economy, resulting in unprecedented sector growth.

The success or failure of new energy tech start-ups depends on factors beyond just the cost and performance of the technologies they create. Governmental policies can prepare the market and influence the perceptions of investors by offering incentives and support for this shift. With support from the private sector, along with historic investments by governments, the opportunities in clean energy technology are ubiquitous. We expect this trend to continue throughout 2022 and to offer vast investment opportunities.

READ THE FULL ARTICLE.



⁹ Biden’s New Problem: Rising Solar Panel Prices (June 2, 2021), available at: <https://www.instituteforenergyresearch.org/renewable/solar/bidens-new-problem-rising-solar-panel-prices/>.

Renewable Energy Development on Contaminated Lands

As greater public attention is given to environmental justice and ESG concerns, many companies are increasingly exploring or revisiting the development of renewable energy projects on contaminated lands. The EPA estimates that there is almost 1,332,000 MW of technical potential for renewable energy redevelopment for contaminated and potentially contaminated lands in the United States.

The EPA's RE-Powering America's Land Initiative encourages the redevelopment of contaminated and potentially contaminated sites for renewable energy projects. It provides an online toolkit for project developers, which includes an interactive mapping of 130,000 potentially contaminated land sites for renewable development that have been pre-screened by the EPA. Outside of the federal realm, there are also a variety of state and local programs in place to support the development of renewable energy projects on contaminated lands, including grants, adders (pricing components added to the cost of producing electricity), dedicated program offices, and low interest rate loans.

The development of renewable energy projects on contaminated lands offers project developers some unique environmental and economic benefits. Projects developed on these sites can leverage existing infrastructure available at the project site (e.g., access to roads and transmission lines). In addition, contaminated and potentially contaminated lands often have zoning designations compatible with renewable energy developments, reducing the cost and time to obtain land use approvals.

Although there are many benefits to redeveloping contaminated lands for renewable energy projects, there are also risks developers should be aware of. These include potential liability for response actions and clean-up costs under the Comprehensive Environmental Response, Compensation, and Liability Act, as well as liability for corrective action and closure under the Resource Conservation Recovery Act. Developers should also consider what liability may arise under state environmental protection statutes.

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RENEWABLE ENERGY FINANCE

Market Trends in Green and Sustainability-Linked Financings

In recent years, the size of the sustainable debt market has increased dramatically, in parallel with rising investor demand for environmentally oriented debt products. BloombergNEF estimates that, the total volume of sustainable debt issued in 2021 surpassed \$1.6 trillion, more than double the volume of sustainable debt issued in 2020.

Green bonds generally look like regular bonds other than requiring a specified use of proceeds. The indenture and notes for green bonds often do not include any identifying features regarding their “green” nature. However, in the offering document, the use of proceeds reflects the application of the funds to exclusively finance (or refinance) eligible green projects meeting certain environmental or sustainability criteria.

Unlike green bonds, sustainability-linked bonds do not require that proceeds be dedicated to a specific purpose. Instead, sustainability-linked bonds contain one or more specific key performance indicators (“KPIs”) and related sustainability performance targets (“SPTs”) that are applicable to the issuer’s operations as a whole. In the event the issuer fails to satisfy the applicable SPT, the bond interest rate increases by a predetermined amount. The intent is to incentivize the issuer to achieve ambitious and meaningful sustainability-related goals, including environmental and social initiatives.

Green bonds and green loans provide a valuable financing option for issuers looking to expend capital on “green” projects, but the restrictions on use of proceeds also make these instruments less accessible for many other issuers of debt who require flexibility to apply proceeds to a variety of corporate purposes. Many expect continued and rapid growth in sustainable debt issuances in 2022, but with it, tighter guidelines and increased scrutiny from investors, market observers and possibly regulators.

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Projects: Renewables & Alternative Energy





RENEWABLE ENERGY TAX

2021 Renewable Energy Tax Developments

The production tax credit (“PTC”) for wind facilities and the investment tax credit (“ITC”) for solar facilities have never been made permanent. Under current law, the rate of credit available depends upon when the construction of the facility began. At the end of 2021, there was no change to the 26% ITC rate for solar facilities, and the PTC phased down to zero. However, many taxpayers expect to rely upon liberal Internal Revenue Service (“IRS”) guidance regarding the time at which the construction of solar and wind facilities began to claim the ITC at the 30% rate available for construction begun before 2020, and to claim the PTC at varying rates depending upon the pre-2022 year in which construction began.

Under the 2021 IRS guidance, a facility that began construction in 2016 through 2019 will satisfy the Continuity Safe Harbor if it is placed in service by the end of the *sixth* year after construction commences, and a

facility that began construction in 2020 will satisfy the Continuity Safe Harbor if it is placed in service by the end of the *fifth* year after construction commences.

Additionally, the proposed Build Back Better Act would significantly extend, expand, and alter the tax credits for wind, solar and other renewables activities. The proposed bill would, among other things, expand and extend the PTC and ITC, as well as broaden the master limited partnership regime to allow inclusion of income from certain types of renewables activities. The bill was passed by the House in November 2021, and a slightly revised version of that bill was released by the Senate Finance Committee in December 2021, but as of the time of this writing the prospects for the enactment of these provisions, or similar provisions, remain uncertain.

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Carbon Capture Projects Incentivized by Tax Credit Guidance: Section 45Q

In 2021, motivated at least in part by the Internal Revenue Code section 45Q (“Section 45Q”) tax credit as well as the general push for ESG investments, many companies announced significant investment in carbon capture projects of various sizes and types. Last year, we reported that there were announced plans to build more than 30 large carbon capture facilities, with many more under study. More than 40 new projects and networks in North America were announced in 2021 alone.

The Section 45Q story of 2021 was really the legislative story: throughout 2021, Congress considered numerous iterations of bills that would enhance and extend Section 45Q. The various legislative proposals to amend Section 45Q culminated in the release of the Senate Finance Committee’s version of the Build Back Better Act (“BBBA”) in December, 2021.

The BBBA as proposed would, among other things, significantly increase the Section 45Q tax credit, reduce the minimum annual capture thresholds that must be met in order to be a qualified facility, and create a “direct pay” election for Section 45Q. If the proposed legislation is enacted in its same or similar form we can expect to see even more growth in carbon capture projects, as those who have adopted a wait-and-see attitude with respect to carbon capture come off the sidelines incentivized by the substantial enhancements to Section 45Q.

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Tax: Corporate & Finance

ENERGY ENVIRONMENTAL/ REGULATORY

Status of EPA Efforts to Address Greenhouse Gas Emissions from the Energy Sector

EPA is in the process of conducting significant rulemakings aimed at reducing greenhouse gas (“GHG”) emissions from the energy sector, even as the U.S. Supreme Court seeks to review the scope of the Agency’s authority in this realm.

In October 2021, the U.S. Supreme Court granted four petitions for certiorari asking the Court to review a decision by the D.C. Circuit to vacate and remand the Affordable Clean Energy ACE Rule, which set emission guidelines for GHG emission reductions from existing coal-fired electric generating units (“EGUs”) under Section 111(d) of the Clean Air Act.

Meanwhile, EPA is working on a new set of emission guidelines for states to follow in submitting plans to establish and implement performance standards for GHG emissions from existing fossil fuel-fired EGUs. Based on EPA’s most recent regulatory agenda, the Agency intends to issue a proposed rule in July 2022 and a final rule in July 2023.

In addition, on November 15, 2021, EPA published proposed New Source Performance Standards designed to reduce methane and volatile organic compound emissions from the oil and natural gas sector (the “Proposal”). EPA is accepting public comments on the Proposal until January 31, 2022 and intends to issue a supplemental proposal that will include regulatory language after all comments have been submitted. EPA expects to issue a final rule in October 2022.

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2021 Environmental Enforcement Trends

Looking back on 2021, environmental enforcement maintained relatively consistent levels from prior years, though each case, on average, yielded significantly higher financial penalties and more costly mitigation actions.

Looking at the latest stats, early indications suggest that cases and outcomes remained fairly steady in 2021, largely in line with enforcement trends over the last decade. This remained largely true despite the Biden Administration rolling back various Trump-era enforcement reforms, such as taking early steps to reinstate the use of supplemental environmental projects and third-party payments in environmental cases. In 2021, for example, EPA and DOJ initiated 1,562 and concluded 1,603 civil cases, nearly identical to 2020’s 1,562 initiations and 1,599 conclusions. Criminal enforcement numbers declined slightly from prior years; in fact, 2021 saw the fewest number of criminal cases opened since 2017 and the fewest total years of prison sentences since at least 2011.

While the number of cases may be steadily declining, DOJ and EPA assessed significantly higher financial penalties in 2021, suggesting that EPA and DOJ may be using their limited resources to pursue higher-value cases. Companies should be prepared to face higher costs in settling environmental cases if EPA decides to bring an enforcement action, particularly if they operate in areas of potential environmental justice concern.

[READ THE FULL ARTICLE.](#)



The EU’s New Decarbonization Package

On 15 December 2021, the European Commission (the “EC”) released its “Hydrogen and Gas Market Decarbonization package” (the “Gas Package”), along with legislation on methane emissions and the energy performance of buildings, and a Communication to the European Parliament and Council on sustainable carbon cycles. This latest package represents the concrete legislative implementation of some of the proposals outlined in the EC’s “Fit for 55” package, launched in July 2021, which aims to signpost a path to achieving the 2030 climate and energy ambitions. The goal is to deliver a 55% reduction in greenhouse gas emissions by 2030, relative to 1990 levels – as per the EU Green Deal and EU Climate Law. The new package promotes the demand and production of renewable and low-carbon gases, including hydrogen.

A key objective of the new proposals is to “facilitate the emergence of an open and competitive EU hydrogen market” and “ensure access of renewable gases” based

on an EU-wide certification system to ascertain their carbon content. The EC considers that there is significant potential to scale up the production and consumption of renewable and low-carbon gases, which make up less than 5% of the gas market today.

Despite the detailed nature of both measures there remain major uncertainties include failure to provide robust definitions of “renewable” and “low carbon gases” and absence of EU-wide or national targets for the production or consumption of renewable and low-carbon gases. In the absence of clear definitions, workable targets and a convincing regulatory framework, the realization of a market for renewable hydrogen and the infrastructure to facilitate its efficient and economical roll out across Europe may prove elusive.

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Energy: Environment – Regulatory



ENERGY ESG

ESG Focus and Scrutiny Continues

Internal and external focus on Environmental, Social and Governance (“ESG”) aspects of a company’s operations took greater hold in 2021, a trend expected to continue in 2022. As ESG continues to grow in importance, companies as well as their boards of directors, investors, shareholders, lenders, customers, regulators, transaction counterparties and other stakeholders continue to struggle for a clear definition and basis for evaluating a company’s ESG statements and performance.

In 2021, the U.S. Securities and Exchange Commission (“SEC”) responded to increasing investor demand for climate and other ESG information from public companies with its announcement and implementation of an “all-agency approach.” SEC’s ultimate objective is to update the 2010 guidance to account for post-2010 developments and put in place a comprehensive climate-related disclosure framework that will result in disclosures that are consistent, comparable, and reliable. A formal rule proposal on climate-related disclosures is expected in 2022.

While ESG reporting in the U.S. remains largely a voluntary concept, there is a growing and widespread attempt outside of the formal regulatory path to implement uniformity due to investor and other stakeholder needs to interpret and compare ESG programs, performance, and data.

The drive toward development of a consistent and standard format for ESG reporting, with quantifiable information to allow for comparability, including the use of metrics for climate data, is expected to continue in 2022 and beyond as is the interest of regulators, investors and other stakeholders in holding companies accountable on the ESG front.

READ THE FULL ARTICLE.

Environmental Justice Update

Following concerted efforts around environmental justice during the first year of President Biden’s Administration, environmental justice remains front-and-center for the Biden Administration in 2022. The Administration’s efforts will continue to focus on the policy, funding and enforcement priorities laid out in President Biden’s sweeping executive order, “Tackling the Climate Crisis at Home and Abroad,” which was issued in the early days of the Administration.

The order laid out an executive level framework and initial steps to implement a “whole of government approach” to environmental equity, including:

- Creating the Justice40 Initiative to deliver 40 percent of the overall benefits of relevant federal investments to disadvantaged communities and to track performance toward that goal through the establishment of an Environmental Justice Scorecard.
- Developing a Climate and Environmental Justice Screening Tool (“CJEST”), building off EPA’s EJSCREEN, to identify disadvantaged communities, support the Justice40 Initiative, and inform decision making across the federal government.
- Directing EPA and DOJ to strengthen enforcement of environmental violations with disproportionate impact on underserved communities and to develop a comprehensive environmental justice enforcement strategy, respectively.

As agencies continue to implement President Biden’s executive order, companies can expect more substantive actions as additional environmental justice guidance and tools are finalized and rolled out. It is important for companies to stay apprised of these developments and how they may implicate their operations. Companies should also leverage EPA’s data tools, public data sources from citizen groups and non-governmental organizations, and internal data to: 1) understand the communities they operate in; 2) mitigate potential liability and legal risk; and 3) proactively approach compliance and community engagement.

READ THE FULL ARTICLE.



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