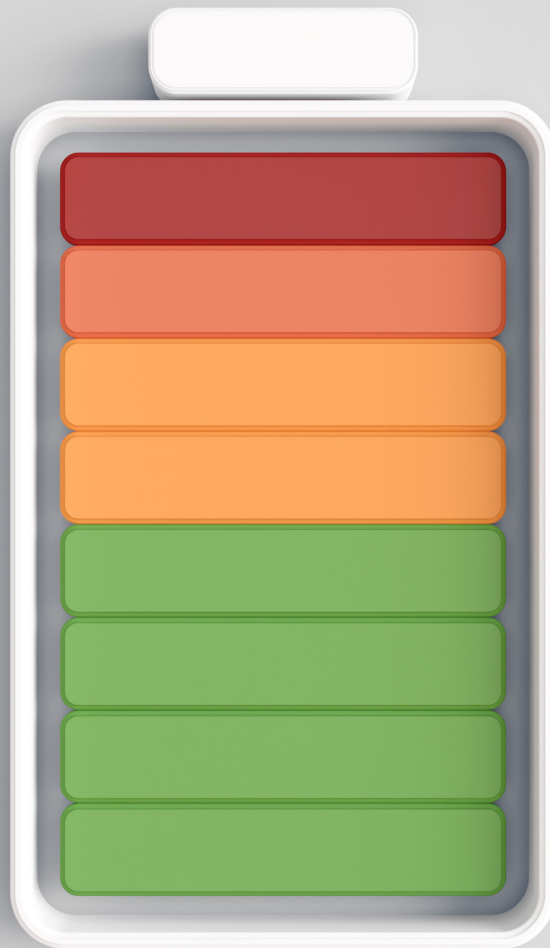




ISSUE 2 2021

# ENERGY

SPOTLIGHT ON THE INDUSTRY



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NOT YET THE END FOR HYDROCARBONS

**McDermott  
Will & Emery**

# IN

INTERNATIONAL NEWS

## IN THIS ISSUE



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In a [joint statement](#) issued in June this year, the [G7](#) nations pledged to support a “green revolution that creates jobs, cuts emissions and seeks to limit the rise in global temperatures to 1.5 degrees,” and committed to “net zero no later than 2050, halving our collective emissions over the two decades to 2030.”

The renewable energy sector is at the front of this green revolution. The demands of the transition to net zero are causing unprecedented impacts on fields as diverse as competition law and employee unionization, are being granted major significance in once-in-a-generation national projects such as the \$2.3 Trillion American Jobs Infrastructure Plan, or are the focus of multi-national collaborations such as the Association of Southeast Asian Nations power grid system.

Renewable energy is no longer considered a niche investment and there are myriad opportunities in new technologies or the repurposing of old technology, such as using green ammonia to transport hydrogen.

But the old ways aren’t dead yet, and our current reliance on oil means there is still a need for astute investment in this sector to make hydrocarbons cleaner and more efficient until net zero is achieved.

Please contact me if you have any comments on our articles or would like to discuss any of the issues raised.

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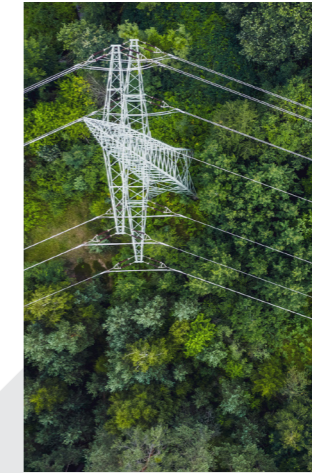
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# US RENEWABLES: INVESTMENT OPPORTUNITIES PERSIST IN UNCONVENTIONAL PLACES

Christopher Gladbach and Seth B. Doughty

*Apart from a few challenges, the sellers' market in renewable energy is accelerating under the Biden administration, leading international investors to seek opportunities in non-traditional investments.*

It continues to be a sellers' market in the United States for mature renewable energy projects. Interest rates have stayed relatively low and international and institutional investors continue to hunt for safe, non-correlated yielding assets, which is often the case with renewables. At the same time, investors face increased

client demand for investments consistent with strong environmental, sustainability, and governance (ESG) commitments, and the Biden administration's "whole-of-government" approach to combatting climate change.

Investors looking for greater rates of return have turned to investments in assets with greater development or offtake risk; in special opportunities, such as the emerging US offshore wind market; or in platforms and management teams. Yet each of these paths carry unique risks that need to be addressed and managed, and prudent investors will take steps to mitigate these when approaching investments.

## SHIFTING INVESTMENT STYLES

Renewable energy was, until recently, seen as a niche investment, but as more government entities and

corporations are setting clean energy targets and, as investors are increasingly focused on ESG goals, the sector has become more popular among institutional and international investors. Utilities have further increased the competition for projects by shifting in greater number from third-party power purchase agreements (PPA) to direct ownership of projects through build-own transfer agreements. Although there are more projects available than ever before, the demand for high quality projects has still outstripped the supply.

Historically, the ideal project was on the verge of starting construction, with tax equity financing committed or, even better, with a history of operations and cash-on-cash return. While this ideal project can still be found, increased demand has driven up the price that an investor will need to pay.

Increases in project pricing were, until very recently, occurring alongside a long-term downward trajectory in PPA prices. This trend was due in part to a decrease in the costs of technology and capital, but also a result of decreased investor expectations in uncorrelated yield. In the last several quarters, however, PPAs have consistently attracted higher prices. It is too soon to tell whether these increases are developers' response to the increased costs of construction, or attempts to capture greater profitability to match historical expectations. Time will

tell whether this shift will allow greater profitability for investments in renewable projects, or whether investors will need to broaden their investment strategies.

Given these constraints, investors are currently more willing to take on development risk in order to purchase a project at a price and stage that will allow returns commensurate with historical expectations. Although part of this trend is owing to reduced development risk as renewable projects become more widespread, it is also a result of investors being willing to accept less certainty as projects are acquired at earlier stages. In order to successfully achieve desired returns in the face of this increased risk, careful and thorough project diligence undertaken by an experienced team is essential to avoid the large potential risks that might otherwise be acquired, such as offtake risk (and shape and basis risk), recently laid bare by the enormous effects of [Winter Storm Uri](#).

## NEW TECHNOLOGIES

International investors entering the US renewables market are increasingly exploiting new technologies in their search for greater returns, most notably battery storage and offshore wind projects.

Although the costs of battery storage are declining, and contracting mechanisms are becoming clearer, existing battery storage facilities are generally young, so the

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market has not yet seen the true costs of maintenance, replacement, or decommissioning. Further, regulatory and market regimes have not yet fully contemplated the range of services that batteries can provide. As a result, there is still a large amount of uncertainty around the operation of battery storage technology. This uncertainty may provide investors with the opportunity for higher returns, especially on projects in competitive markets where the rules regarding storage are more fully developed, and projects that have been developed by experienced teams.

Investors are likely to increase returns if they understand the full range of services that may be monetised in a particular market. In addition, investors will best protect their investments by entering into contracts with strong guarantees to control replenishment costs and with operators experienced in maximising variable revenues.

## This uncertainty may provide investors with the opportunity for higher returns

Until very recently, offshore wind was a challenging proposition in the United States. However, as states see the continued success of European offshore wind projects, and the Biden administration continues to be friendly towards renewable energy, the demand for offshore wind has increased.

There is a greater optimism and evidence that the United States can now harness this untapped energy source. In May this year, for example, the Bureau of Ocean Energy Management provided [Vineyard Wind](#) a Record of Decision allowing the project to move forward, and provided a notification of intent to begin an environmental review for a second large scale project. Additionally, in June this year, the DC Circuit Court of Appeals, in *Fisheries Survival Fund, et al. v. Sally Jewell, et al.*, affirmed a lower court ruling that is expected to further open up the US offshore wind farm permitting process.

Despite these positive developments, there are still challenges to be overcome. Developers and managers can learn from their European counterparts and European investors, but construction, regulatory, and operations and maintenance risks remain largely

unresolved at a market-wide level in the United States. In evaluating a potential offshore wind project investment, prudent investors will need to consider the project's likely path forward for regulatory approvals; its equipment, construction, and service provider contracting strategies; and its approach to tax credit monetisation. In addition, international investors must have a clear plan for their eventual exit strategy and the likely availability of construction financing, tax equity financing, and permanent equity.

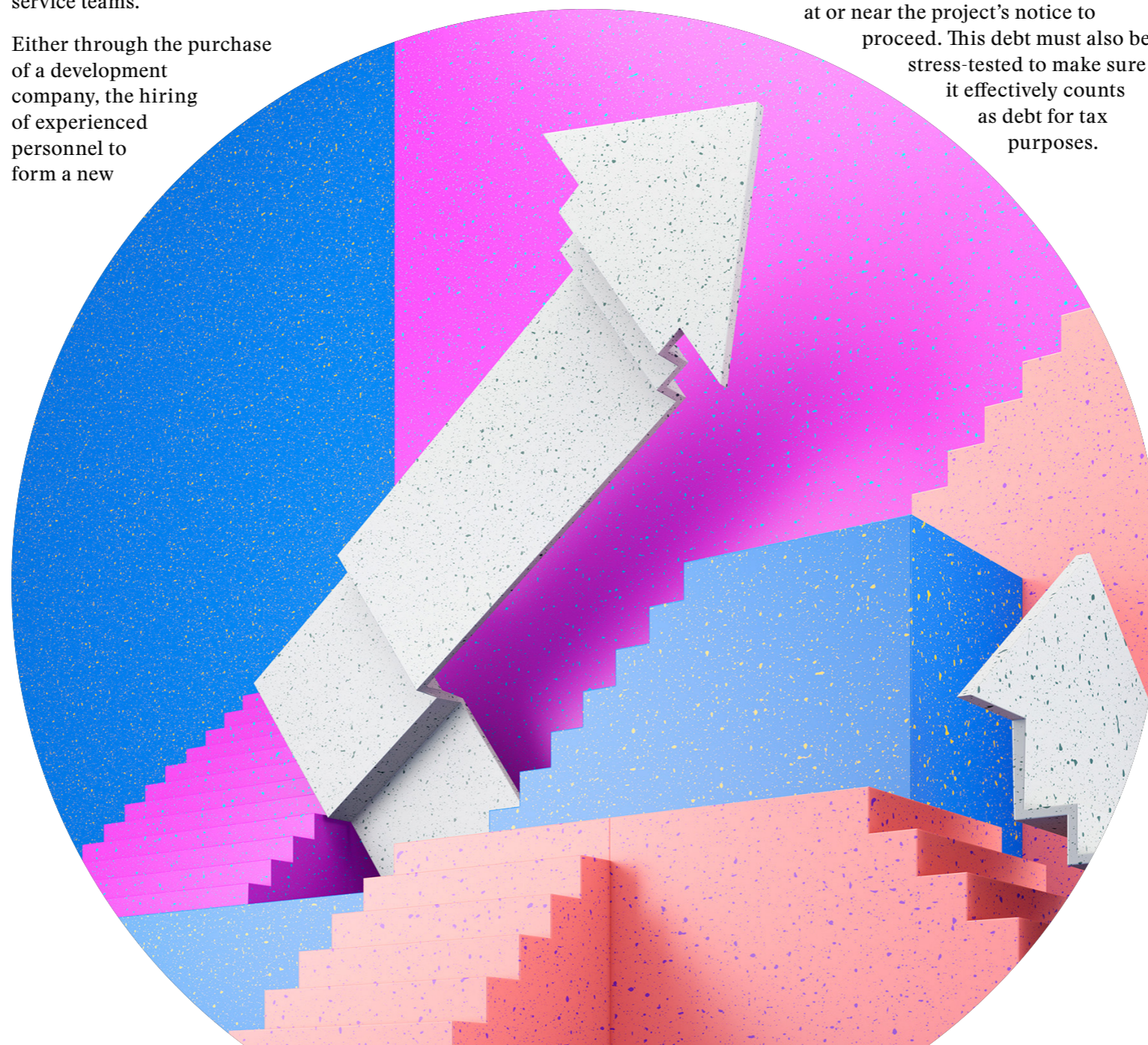
### NEW INVESTMENT OPPORTUNITIES

In search of higher returns that also meet an ESG mandate, international investors are turning to new types of investment. There is a recent trend towards greater international investment directly in the people who make renewable energy work: development and service teams.

Either through the purchase of a development company, the hiring of experienced personnel to form a new

development platform, or investments *via* co-development agreements or similar exclusivity arrangements with developers, international investors are entering the US market by indirectly investing in projects at all stages of development. Investors with a strong platform are able to increase returns by reducing or managing the costs of failed projects while fully capturing the returns for any successful development.

For international investors in solar projects seeking to utilise production or investment tax credits, careful tax and corporate structuring needs to be put in place to make sure that tax-exempt or foreign limited partners do not put these credits in jeopardy. A number of sophisticated structures involve convertible debt, whereby development funding is provided by debt that is convertible to equity at or near the project's notice to proceed. This debt must also be stress-tested to make sure it effectively counts as debt for tax purposes.



A second investment trend is the purchase of renewable energy service providers, construction companies, and maintenance companies. Increasingly, international investors who want to invest in renewable energy have turned to these non-traditional investments rather than competing for energy-production assets. Investors must ensure, however, that there is a capable, experienced team on board and a sufficient pipeline of projects available, either through affiliates or third-party projects, to allow for sufficient profit opportunities. Investors must also consider their potential exit strategy to ensure they are not left with stranded assets.

### DESPITE CHALLENGES, THE FUTURE MAY BE BRIGHT

The proliferation of renewable energy projects is creating a new and specific set of hurdles to overcome. There continues to be a greater demand for tax equity investment than tax equity investors have an appetite to fill and, although new investors, both foreign and domestic are entering the market, there is also a major push for Congress to enact refundability measures to resolve this demand. Supply chain and labour issues related to COVID-19 have caused prices for project-inputs to increase across the board, and experienced contractors are becoming too busy to service all their construction and maintenance needs.

It will take some time to sort out whether these issues are the results of inflation, momentary blips, or structural changes to the renewable energy industry. Regardless, and notwithstanding these challenges, renewable energy is poised to play a critical role in the United States' fight against climate change. It provides investment opportunities for both US and foreign investors that are willing to look beyond traditional energy generation assets to the broad range of investment opportunities available in the renewable energy industry.



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# THE US\$2.3 TRILLION AMERICAN JOBS INFRASTRUCTURE PLAN

Elle Hayes, Dominique J. Torsiello, Carl J. Fleming and Ranajoy Basu

In March this year, US President Joe Biden unveiled the [American Jobs Plan](#), the first of a two-part infrastructure package to revive the economy after the COVID-19 pandemic and the second stage of President Biden's "Build Back Better" agenda.

The [American Jobs Plan](#) is aimed at rebuilding the nation's infrastructure, supporting clean energy initiatives, and enabling the United States to "out-compete" China. It reaches across multiple sectors, starting with the auto industry, pharmaceuticals, and construction, and seeks to employ renewable energy in many of its core elements. The plan aims to create millions of jobs and is being hailed as the biggest US investment in infrastructure since the construction of interstate highways and the Space Race.

If approved, the plan would

- Invest US\$621 billion in transportation infrastructure such as roads, bridges, public transit, and electric vehicle development. US\$174 billion will be

specifically reserved for federal programmes to encourage state and local governments to collaborate with the private sector to build a national network of 500,000 electric vehicle chargers by 2030.

- Utilise over US\$300 billion to improve drinking water infrastructure, deliver broadband access to all Americans, and upgrade electric grids. The plan highlights the construction of a "future proof" broadband infrastructure in underserved areas and earmarks funds for infrastructure on tribal lands, while ensuring that tribal nations are consulted in the programme's administration.
- Create a 10 year extension of wind, solar, and battery tax credits, which are currently set to expire as early as 2022.
- Impose a new tax credit to support the construction of high voltage transmission lines to carry 20 gigawatts of power.
- Invest over US\$300 billion in building and retrofitting affordable housing, along with constructing and updating schools.
- Invest US\$580 billion in strengthening American manufacturing, research and development, and job training efforts.

- Procure 24/7 clean power for federal buildings.
- Establish a federal Energy Efficiency and Clean Electricity Standard, aimed at cutting electricity bills and electricity pollution, increasing competition in the market, and continuing to leverage the carbon pollution-free energy provided by existing sources like nuclear and hydropower.

If approved, many of the proposals outlined in the Plan will have a direct and substantive impact on the renewable energy industry across the United States. It combines spending and tax credits to renovate the infrastructure of the United States and, if passed, would also expand the Investment Tax Credit (ITC) to apply to stand-alone battery storage projects and reform the Section 45Q tax credit, making it direct-pay. This expansion has received bipartisan support among lawmakers and is an unprecedented step that would deliver huge incentives to build transmission lines and further the Biden administration's clean energy initiative.

With the goal of 100 per cent carbon free electricity by 2035, the Plan has garnered support from members of congress and renewable energy groups. According to the [American Council on Renewable Energy](#), "the direct pay option for renewable generation credits will go a long way toward accelerating the deployment needed to decarbonize the power sector by 2035, and new incentives for transmission and energy storage will be key to securing a more reliable, efficient and cleaner electric power grid."

Electric vehicle production will likely begin to move at a rapid pace in order to meet the Biden administration's goal of a network of 500,000 electric vehicle chargers by 2030. The market for manufactures and producers of energy will magnify under the plan.

The Biden administration expects the US\$2.3 trillion plan to be fully paid for in 15 years. A corporate tax increase from 21 to 28 per cent, among other tax increases, has been proposed as a means to help funding investments in infrastructure, clean energy, and research and development.

## INVEST IN AMERICA ACT

The [Investing in a New Vision for the Environment and Surface Transportation in America Act](#) (the INVEST in America Act), was introduced in the House on June 4, 2021 and passed on July 1, 2021. The bill includes provisions from President Biden's American Jobs Plan and authorises additional spending for roads, bridges,

highway safety, electric vehicle charging stations, rail, and drinking and wastewater infrastructure.

Among other provisions, the bill

- Extends financial year (FY) 2021 enacted levels through FY 2022 for federal aid highway, transit and safety programs
- Reauthorises for FY 2023 to FY 2026 several surface transportation programs
- Addresses climate change, including reviewing strategies to reduce the climate change impacts of the surface transportation system and undertaking a vulnerability assessment to identify opportunities to enhance the resilience of the surface transportation system and ensure the efficient use of federal resources
- Establishes a rebuild rural bridges programme to improve the safety and state of good repair of bridges in rural communities
- Implements new safety requirements across all transportation modes.

The US\$715 billion INVEST in America Act includes more than US\$44 billion added during the amendment process so that larger investments in infrastructure, including electric vehicle charging and passenger rail grant programmes, [according to aides](#) to House Transportation and Infrastructure Committee Chairman Pete DeFazio.

The bill allocated US\$73 billion to power infrastructure, including US\$4 billion towards electric vehicle charging infrastructure and US\$4.1 billion in grants to purchase electric transit buses. The allotment of over US\$8 billion to electric vehicle charging infrastructure and the purchase of electric vehicles supports President Biden's goal of a network of

**The bills have the ability to reshape the renewable energy industry**

500,000 chargers within the United States by 2030. In increasing the availability of electric vehicle chargers and promoting the purchase of electric vehicles for public transport, President Biden further advances the goal of reducing greenhouse gas pollution by 2030 and ultimately the target of net zero emissions by 2050.

Should the American Jobs Plan and INVEST in America Act pass, the bills have the ability to reshape the renewable energy industry, limit fossil fuels, reform US infrastructure, and create substantial opportunities within the renewable energy market.

#### POTENTIAL GLOBAL ECONOMIC IMPACT

According to a [report](#) by the International Energy Agency (IEA) the United States will need to significantly increase its supply of critical minerals to manufacture wind turbines, solar panels, lithium-ion batteries, and electric vehicles. For example, IEA claims that the production of lithium-ion batteries alone could increase global demand by more than 40 times through 2040. The need for raw materials will provide an opportunity for other countries to export the necessary materials to the United States, while simultaneously providing additional US employment and manufacturing opportunities.



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# GREEN AMMONIA: AT THE INTERSECTION OF PETROCHEMICALS AND THE ENERGY TRANSITION

John Bridge and Parker A. Lee

As the world seeks to transition to a lower carbon economy, replacing traditional hydrocarbon-based transport fuels in the automobile, aviation, and shipping industries will be important. For petrochemical and infrastructure businesses looking to participate in that greener economy, green ammonia is looking like a promising option.

Ammonia has long been a key component of the traditional petrochemical industry and is now most commonly used as fertilizer and in connection with pharmaceutical products. Traditional ammonia production is fossil fuel based, meaning that the feedstock for most ammonia production plants is natural gas, resulting in significant carbon dioxide emissions. The facilities that produce ammonia are often found tucked in amongst giant petrochemical complexes, surrounded by miles of natural gas pipelines and adjacent to related terminal, storage and port infrastructure.

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## Green ammonia... means no fossil fuel feedstock, minimal CO2 emissions, and a production process powered by renewable energy

There is considerable focus on hydrogen as the leading candidate to serve as the fuel of the future in a low-carbon energy world. But recent studies and developments suggest that ammonia, when produced using electricity generated from renewable energy sources rather than fossil fuels, may also become a substantial player in the transition to low carbon energy and the decarbonisation of transport fuels.

Examples of the heightened focus on green ammonia development include the following:

- An [announcement](#) by Malaysia's MISC Berhad, Korea's Samsung Heavy Industries, the UK's Lloyd's Register and Germany's MAN Energy Solutions to team up to produce an ammonia-fueled tanker ship in the next few years
- A joint venture amongst Yara International, Statkraft and Aker Horizons to establish Europe's first large-scale green ammonia plant in Norway
- A joint venture amongst Air Products, ACWA Power and NEOM to build a US\$5 billion world-class green hydrogen-based ammonia production facility in Saudi Arabia
- CF Industries' [recent announcement](#) of plans to build an electrolysis-based ammonia plant powered by renewable energy in Donaldsonville, Louisiana.

As is usual when it comes to green energy, Europe is taking the lead on developing green ammonia, but the CF Industries project shows a new willingness to develop the green ammonia market in the United States.

### GREEN AMMONIA

#### What is it?

Ammonia is a chemical compound composed of both nitrogen and hydrogen (NH<sub>3</sub>). Most current ammonia production creates what is deemed gray or brown ammonia, and is made through the conversion of natural gas into gaseous hydrogen, which is then combined with nitrogen through the [Haber-Bosch process](#), a scientific process developed at the beginning of the 20th century.

Once produced, ammonia is mostly used as a fertilizer, as well as in refrigeration, explosives, textiles, and pharmaceuticals. The production of gray ammonia uses a fossil fuel as its main feedstock, and produces large amounts of carbon dioxide in the production process, neither of which are in line with decarbonisation initiatives.

But there are other methods of producing ammonia. Blue ammonia is produced from the conventional ammonia production process, but the related CO<sub>2</sub> is captured and stored through carbon capture and sequestration. From a low carbon perspective, this is better than gray ammonia, but it still involves the use of a fossil fuel as feedstock. In addition, some of the captured CO<sub>2</sub> may end up being used in enhanced oil recovery processes, which is, of course, extraction of a fossil fuel.

In contrast, green ammonia is produced with hydrogen from water electrolysis and nitrogen captured from the air using a separation unit, combined through the Haber-Bosch process. This production – electrolysis, nitrogen capture, and the Haber-Bosch process – can be powered by wind, solar, or other forms of renewable energy generated on-site or purchased from the grid. Green ammonia therefore means no fossil fuel feedstock, minimal CO<sub>2</sub> emissions, and a production process powered by renewable energy.

It's worth noting that the ammonia that is produced from any of these methods, whether it be gray/brown, blue, or green, is the same end product, it's just the CO<sub>2</sub> emissions from production that differ.

#### WHY DOES IT MATTER?

Green ammonia could be an important component of the transition to low carbon energy for a number of reasons.

#### Alternative, Zero-Carbon Fuel

One of the more exciting aspects of green ammonia is its potential to serve as an alternative, zero-carbon fuel, principally in shipping, but also in the aviation, rail, automobile, and power industries. There are a number of projects already underway in the shipping industry to retrofit existing liquid natural gas engines to run on ammonia; the first of these ships are expected to be operational around 2023.

There are also similar projects aimed at modifying internal combustion engines (used in cars) and gas turbines (used in natural gas fired power plants) to run on ammonia, so that certain heavy road transport vehicles and combined-cycle gas turbine power plants could continue in their current forms but powered by a zero-carbon fuel. Ammonia, like hydrogen, can also be used in connection with certain types of fuel cells to produce electricity.

#### Storage and Transportation

Transportation and storage infrastructure for ammonia is already in place across the globe. This

infrastructure mainly consists of pipelines for inland transport, and port and shipping infrastructure for water bound transport.

This means that, once green ammonia is produced, there is already a distribution network in place, so a massive buildout of new infrastructure to service the commodity (with a resulting massive bill for development) won't be necessary.

#### Conduit for Hydrogen

By its chemical nature, ammonia is substantially composed of hydrogen molecules. As mentioned above, hydrogen is a potential alternative fuel itself by running hydrogen through a fuel cell to generate electricity, but a convenient network of hydrogen pipelines doesn't yet exist, and retrofitting existing natural gas pipelines to transport hydrogen is difficult and expensive. Enter green ammonia. As a hydrogen conduit, green ammonia can be readily stored and transported to locations with significant hydrogen demand, and that ammonia can then be dissociated back into hydrogen and nitrogen.

#### Renewable Energy Storage Technology

Energy storage has a key role to play in the transition to lower carbon and green ammonia can act as a green energy storage technology to help manage or counter the intermittency of wind and solar generated electricity.

## Ammonia can also be used in connection with certain types of fuel cells to produce electricity

Green ammonia produced at renewable energy projects, either as the primary purpose of those projects or as excess power generated at such projects, may be stored, transported, and ultimately used as a zero-carbon fuel or a conduit for hydrogen, as outlined above.

#### WHAT'S NEXT?

As with many emerging technologies in the energy transition context but also across all industries, cost is a major obstacle to achieving the commercial viability of green ammonia.

Establishing green ammonia production facilities, and the related renewable energy infrastructure to power those facilities; retrofitting ships, car engines, and power plant turbines; and demonstrating the technical feasibility of all of these projects, is incredibly expensive, especially for a market where demand is effectively still very small. For most developers, the existing demand for green ammonia does not justify the significant development capital expenditure required to establish production on a commercial scale.

This supply-demand issue (demand is needed to justify creation of the supply, but supply will likely encourage further demand) is familiar to anyone who follows the renewable energy markets but, as we have seen in other parts of the energy industry, incentive-based or politically mandated development opportunities tend to attract capital. And there are a lot of capital providers, in the forms of private equity, hedge and infrastructure funds, asset managers, endowments and pension funds, forward-thinking family offices, non-governmental organizations, and direct government funding, motivated to create a zero-carbon future. Green ammonia may well become their next investment target.

For petrochemical and infrastructure businesses that partner with those capital providers early and conduct the actual development work, green ammonia may be the pathway to profitable participation in the energy transition economy.



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## RECENT DEVELOPMENTS IN THE SOUTH EAST ASIA RENEWABLES MARKET

Ignatius Hwang and Merrick White

Despite considerable challenges, South East Asia is pulling out all the stops to transition to primarily renewable energy in the coming years.

### SINGAPORE

Currently, more than 95 per cent of Singapore's electricity generation is fuelled by imported natural gas; installed solar power capacity is around 500MWp, with the target of at least 2GWp by 2030. This island nation, with limited access to renewable sources of energy, is therefore exploring innovative solutions such as importing renewable energy.

The Singapore Energy Market Authority recently [issued a request for proposal](#) for a pilot tender for the importation of 100MW of renewable energy from Malaysia to Singapore, which could commence by the end of 2021. If successful, it could make Malaysia a key exporter of renewable energy into Singapore.

In parallel, Singapore is driving a pathfinder cross-border power trade initiative involving Laos, Thailand, Malaysia, and Singapore to create a broader Association of Southeast Asian Nations (ASEAN) power grid system. This would open the possibility of importing cheap, clean hydroelectric energy from Laos into Singapore.

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Singapore's Sunseap Group recently [announced](#) plans to spend US\$2 billion on building the world's largest floating solar farm (installed capacity of 2.2GWp) and energy storage system in Batam. Further south, Australia's Sun Cable has [announced](#) plans to build a 10GWp solar farm in the Northern Territory, a 22GW hour battery storage facility, and a 4,500 km undersea transmission network to Singapore for the export of electricity to Singapore. The Australia-ASEAN Power Link Project, will, when completed provide Singapore with access to renewable energy from Australia.

## A successful tender could make Malaysia a key exporter of renewable energy into Singapore

These exciting initiatives and projects will help Singapore achieve a more diversified energy mix and easy access to regional renewable energy sources, and potentially establish the nation as a regional hub for renewable energy trade.

### VIETNAM

Vietnam has the highest installed capacity of solar power in South East Asia. Its solar sector has undergone phenomenal growth in the past four years, from only 86 MW in 2018 to 16,500 MW at the end of 2020, and now accounts for around 25 per cent of the country's generation capacity. This growth was primarily driven by attractive feed-in-tariff regimes adopted between 2017 and 2020.



This development has, however, been hampered by Vietnam's undeveloped grid infrastructure. In January 2021, the government introduced its first uniform Public-Private Partnership (PPP) Law, potentially paving the way for private sector participation in the nation's grid expansion.

In February 2021, Vietnam released the much awaited draft of its latest national power development plan, Power Development Plan 8 (PDP 8), for 2021 to 2030. Vietnam plans to increase solar capacity to 18.6 GW, and wind capacity (just 0.6 GW in 2020) to 18.0 GW by 2030. These sources combined will make up 47 per cent of total capacity in 2030, rising to 60 per cent in 2040. The draft PDP 8 recognises the grid infrastructure limitations and has prioritised its enhancement.

These latest policy and regulatory developments place Vietnam firmly on track to achieve the 2030 and 2040 targets under the PDP 8.



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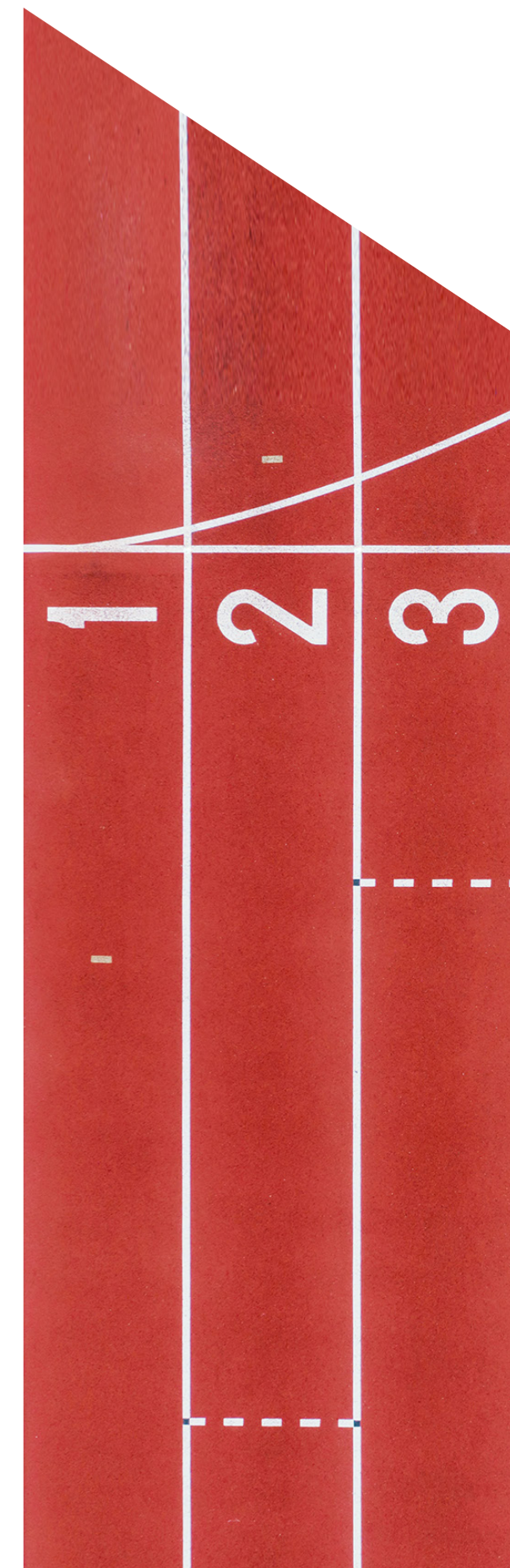
# COMPETITION POLICY AND THE EUROPEAN GREEN DEAL: A PATHWAY TOWARDS CLEAN ENERGY AND ENERGY EFFICIENCY

Hendrik Viaene, David Henry and Karolien Van der Putten

EU competition rules—particularly State aid, merger control, and antitrust rules—are playing a key role in supporting the goals of the European Green Deal.

In 2019, the European Union presented the [European Green Deal](#) (EGD) with a view to mitigating the impact of the climate change crisis. The EGD's overarching goal is to achieve climate neutrality, *i.e.*, net zero greenhouse gas emissions, by 2050. As part of this ambitious objective, the European Union has put significant emphasis on the urgent need to transition to the use of clean energy and resource-efficient construction.

In order to meet this objective, there is a clear need for significant financial investment but, according to the European Union, financial investment alone is insufficient to meet the EGD's goals. The European Commission believes competition policy also has a pivotal role to play in the success of the EGD. This is shown by the Commission's



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## State aid is considered key to achieving a cost-effective transition to climate neutrality

recent [Call for Contributions](#), the purpose of which was to gather ideas and proposals on how the competition rules and sustainability policies (including clean energy and energy efficiency) could work together.

While the question remains somewhat open as to how competition law instruments can assist in achieving the EGD's objectives most effectively, the Commission and EU Member States are already actively seeking to exploit the competition rules to achieve the EGD's climate goals.

### STATE AID AS A CENTRAL PILLAR OF THE EGD

State aid, which is illegal unless notified to and approved by the Commission, is considered key to achieving a cost-effective transition to climate neutrality by 2050. Of particular note in this context is a Commission proposal to incentivise Member States to think green by possibly permitting more State aid (or aid on easier terms) for environmentally beneficial projects than for comparable projects that do not give rise to the same benefits; essentially a "green bonus".

In parallel with State aid innovations such as these, there are other, ongoing initiatives. For example, on July 23, 2021, the Commission adopted an extension of the General Block Exemption Regulation for State aid, specifically covering aid for energy efficiency projects in buildings, and aid for recharging and refuelling infrastructure for low emission road vehicles. In addition, the Commission is [currently revising the Guidelines on State aid for environmental protection and energy](#) and recently published draft [Climate, Energy and Environmental State aid Guidelines](#)

[\(CEEAG\)](#). The CEEAG, when adopted, would further enable Member States to provide support for renewable energy and the improvement of energy performance in buildings. This development follows on from the adoption in April 2021 of the Commission's [revised Regional Aid Guidelines](#), which reflect the new policy priorities driven by the EGD.

Furthermore, in the context of the EU Recovery and Resilience Facility, the Commission has published several State aid guiding templates to assist Member States with the design and preparation of the State aid elements of their recovery plans. The principal focus of these templates is the transition towards clean energy and energy efficiency and cover, for example

- Energy and hydrogen infrastructure
- Energy from renewable sources
- District heating/cooling generation and distribution infrastructure
- Energy efficiency in buildings
- Electric recharging stations and hydrogen stations for road vehicles.

In addition to the legislative changes that have been made in support of the EGD, and those that are on the near- to mid-term horizon, the State aid rules have already been effectively employed to further the EGD's aims. For example, in December 2019, the Commission approved an [Important Project of Common European Interest](#) (IPCEI), jointly notified by seven Member States, to support research and innovation projects in the battery value chain. Under this IPCEI, the relevant Member States will provide up to €3.2 billion in funding. In January 2021, the Commission [approved an IPCEI amounting to €2.9 billion of public support](#) by 12 Member States for pan-European research and innovation along the entire battery value chain. The project, called European Battery Innovation, complements the December 2019 IPCEI.

### ANTITRUST RULES TO CLARIFY SUSTAINABILITY AGREEMENTS AND GREEN BENEFITS

The EU antitrust rules already support the objectives of the EGD by, for example, prohibiting restrictions to the roll-out of clean technologies, or the foreclosure of access to infrastructure that is essential for the development of renewable energy sources. Agreements that pursue clean energy and energy efficiency can also often benefit from the Commission's block exemption regulations (BERs): the Vertical BER (VBER), the Research and Development BER (R&D BER) and the Specialisation BER (SBER).

Despite this, as is shown by its Call for Contributions, the Commission is seeking to identify impediments to desirable agreements that support EGD objectives, and suggestions for how such impediments can be tackled. The Commission has [recently stated](#) that the competition rules relating to agreements between competitors "are not sufficiently adapted to [...] the pursuit of sustainability goals". With the ongoing reform of the R&D BER, the SBER, and the accompanying Horizontal Guidelines (revised versions of which will be adopted at the end of 2022), we are likely to see increased legal certainty regarding when and how the competition rules will be applicable to environmental/sustainability agreements. Furthermore, the reform of the Horizontal Guidelines will likely clarify what types of green benefits can be invoked in the assessment of environmental/sustainability agreements to outweigh the possible restrictive effects on competition of such agreements.

As things currently stand, the EU rules on competitor collaborations leave little room for climate change considerations to be taken into account as a countervailing factor in the assessment of a restrictive agreement. This position stands in contrast to developments made at Member State level, where some States have already stolen a significant march on the Commission. The Dutch competition authority's [draft Guidelines on Sustainability Agreements](#) are a good example, as is the [draft amendment](#) to the Austrian competition law, which foresees an exemption for agreements that contribute to an "ecologically sustainable or climate-neutral economy."

### MERGER CONTROL: THE INTRODUCTION OF "GREEN EFFICIENCIES"?

Many mergers bringing about environmental benefits do not pose competition problems, as demonstrated by the Commission's clearance this year of Volvo and Daimler's joint venture for the development and production of hydrogen cells for trucks. Environmental factors are starting to play a greater role in the Commission's substantive review of mergers, which can be seen in the 2019 Aleris/Novelis merger, where environmental matters were an important part of the market definition analysis.

The role of environmental factors does, however, remain somewhat limited under the EU Merger Regulation, so the Commission, in particular in the context of its Call for Contributions, is currently assessing how merger enforcement could better contribute to protecting the environment and the EGD's sustainability objectives.

One development we may see is a relaxation of the efficiency defence in mergers reviewed under the EU Merger Regulation. Specifically, there may be increased scope to successfully invoke countervailing green efficiencies in an otherwise problematic merger. While such development at EU level remains uncertain (see the Commission's 2020 decision in Aurubis/Metallo, where green efficiencies were invoked but rejected), developments at Member State level show that green benefits, such as the roll out of clean energies, will likely play a greater role in merger reviews.

It is understood that the French Competition Authority, for example, anticipates putting increased emphasis on environmental benefits in its merger reviews going forward. The developments at Member State level may therefore provide the Commission with food for thought and spur a change in how it reviews mergers in the context of the EGD.

### NEXT STEPS

While competition policy may not, at first sight at least, be the most obvious instrument to achieve the EGD's clean energy and energy efficiency objectives, it is clear that it has an important role to play. This is demonstrated by the recent Commission approvals of several IPCEIs and the significant legislative changes in support of the EGD that have already been promulgated and are on the near- to mid-term horizon.

There can be little doubt, therefore, that competition policy will play a crucial role in achieving the EGD's overarching goal of achieving climate neutrality by 2050.



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# CLEAN ENERGY EMPLOYERS ARE THE NEW TARGET FOR ORGANISED LABOUR

Ellen M. Bronchetti, Ron Holland and Saniya Ahmed

Employers in the clean energy sector should be prepared to consider how changes to the US labour landscape are likely to impact their workforce.

US President Biden has come out strong in support of organised labour, with the media referring to him as one of the most [pro-union presidents in American history](#). The Biden administration's push towards clean energy and proposed pro-union legislation, combined with declining union jobs in the fossil fuel industry, present the perfect opportunity for unions to organise workers in the clean energy space.

## THE BIDEN ADMINISTRATION'S FOCUS ON CLEAN ENERGY

There is no question that the Biden Administration intends to move the United States toward clean energy jobs in the electric, wind, and solar industries. [The American Jobs Plan](#) is an ambitious US \$2.3 trillion project to, in part, move the power sector to 100 per cent emissions-free electricity by 2035, and the economy to net zero emissions by 2050, while simultaneously bolstering union membership.

This latest policy initiative calls on Congress to invest in clean energy by providing tax credits to companies that invest in or generate energy from clean sources, while requiring the benefitting businesses to follow strong labour practices and remain neutral when employees seek to unionise. See more on the Plan on [page 6](#).

## THE PRO ACT

During his campaign and since taking office, President Biden has strongly encouraged passage of the Protecting the Right to Organize (PRO) Act, the broadest pro-union legislation in decades. While the legislation in its current form is unlikely to pass, the PRO Act reveals the administration's pro-union agenda, which will inevitably reappear in future legislation or executive orders. Three key parts of the legislation aim to give more power to unions through

- Broadening the definition of "employee"
- Eliminating right-to-work laws
- Limiting an employer's ability to interfere in the formation of unions.

The definition of "employee" would be broadened to include independent contractors and supervisors, who are currently not permitted to unionise; under the new definition, both groups would be allowed to join unions. Clean energy, an industry known to rely heavily on independent contractors, could therefore see the number of "employees" increase dramatically overnight. Even if the PRO Act ultimately fails, President Biden could push to modify the definition of "employee" through both the Department of Labor and the National Labor Relations Board.

The PRO Act also proposes the elimination of state right-to-work laws. Currently, 28 states maintain right-to-work laws that allow workers to opt out of union membership and exempt them from paying union dues. Despite the opt-out, these workers still benefit from union initiatives aimed at helping union members. Under the PRO Act, workers would be obligated to pay their "fair share" of union dues, providing labour unions with additional financial power and, inevitably, increased bargaining power.

The elimination of right-to-work laws is likely to have significant effect on the clean energy sector. Historically, states with right-to-work laws tend to have low union membership, and many of these same states are emerging as leaders in the clean energy revolution. For example, North Carolina and Georgia are both right-to-work states, have the lowest rates of union membership in the country, and have some of the highest levels of solar installation at state level. With the elimination of right-to-work, both states could see a dramatic increase in organising comparable with states like California, where there are no right-to-work laws and one of the highest unionisation rates in the country. While federal elimination of state right-to-work laws seems unlikely, the Administration, through

executive order, may aim to tie federal funding or government contracts to similar initiatives.

The PRO Act also pledges to eliminate employer involvement in almost all unionisation efforts. Employers will no longer be involved in union election processes, nor be allowed to hold mandatory captive audience meetings where employers often share their own opinion on unions.

While the PRO Act is unlikely to become law, states are already rolling out their own pro-union agendas. Recently, Washington and New York tied clean energy initiatives to pro-labour objectives by requiring businesses to participate in project labour agreements and offer their employees prevailing wages in exchange for clean energy tax incentives.

Support for the PRO Act and the administration's labour-friendly policies are likely to expand at the federal level, and the clean energy industry could soon see similar offers for tax incentives and other pro-labour initiatives.

## CHANGES IN UNION MEMBERSHIP

American labour unions have seen their membership in the fossil fuel industries shrink as more jobs are eliminated in favor of renewables and automation. While the elimination of union jobs has not led to an equal increase in renewables, that may be about to change as organised labour gains popularity, unions invest in retraining their membership, and partnerships between unions and environmental organisations evolve.

In addition, the general attitude toward organised labor is changing, as Americans have become more pro-union over the last few years. [A recent study](#) showed that over half of Americans would vote in favor of a union at work, although only 11 per cent of employees currently belong to one. The country is also beginning to see a new wave of organisation in industries like technology and other white collar industries. Unionism has become a social justice issue, especially for "new" economy workers.

## THE UNIONS' VIEW

Over the past decade, unions have been split on whether or not to embrace the clean energy revolution. Opponents cite concerns with low job quality and a lack of stability in comparison with traditional energy jobs. Nevertheless, some unions have spent the past decade fully embracing the green revolution. In 2009, Ironworkers Local 444 received a US\$1.9 million grant to fund an apprenticeship programme focused on training workers to undertake the installation of wind turbines. In 2019, the Utility Workers Union

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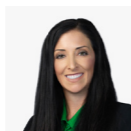
## Unionism has become a social justice issue, especially for “new” economy workers

of America, American Federation of Labor, and the Congress of Industrial Organization created an apprenticeship programme specifically designed to teach skills necessary for renewable energy jobs.

Partnerships like the BlueGreen Alliance and the Labor Network for Sustainability, which aim to bring together unions and environmental organisations, are also increasing in popularity. Founded in 2006 and 2010 respectively, these organisations have focused their efforts on solving environmental challenges in ways that create and maintain quality union jobs and build a clean, thriving, and equitable economy.

Traditional unions, with membership in the oil, chemical, and manufacturing industries, are similarly embracing the clean energy revolution and providing their input on the future. Steelworkers Local 675 and Local 5, in addition to 17 other unions, recently funded a [white paper](#) that addresses how California can fully transition to clean energy by 2030 while creating over one million jobs in clean energy. All these unions appear to be of the same opinion: the shift to clean energy is inevitable and organised labour must get involved now in order to establish its presence and influence as the workplace evolves.

The effects of President Biden’s proposed reforms, combined with an increase in organising and pro-union environmentalists, means that clean energy employers should be prepared for unions and their allies to exert pressure to have an organised workforce. Employers entering this space need to consider where to set up their business and how to structure their work environment, and prepare for the likelihood of being targeted by organised labor.



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# NOT YET THE END FOR HYDROCARBONS

Merrick White



## There has there been significant activity in the Asian upstream market this year. Who is buying mature oil fields, and why?

After perhaps the quietest year ever for Asian upstream mergers and acquisitions (M&A) in 2020 ([according to Wood Mackenzie](#), the Asian upstream M&A market accounted for only 5 per cent of global upstream M&A compared to 35 per cent in 2018), there has been a substantial upturn in 2021, with several significant portfolios coming to the market.

Already this year, Hibiscus has acquired Repsol’s Malaysian portfolio and one of its blocks in Vietnam, Udenna acquired Shell’s stake in the Philippines Malampaya gas project, and Jadestone acquired SapuraOMV’s peninsular Malaysian assets.

Pertamina is currently selling an interest in the Rokan production sharing contract (PSC), which holds the Duri and Minas fields, in Sumatra, Indonesia; ConocoPhillips is selling its interest in the Corridor Block PSC, Sumatra; ExxonMobil is selling a package of several Malaysian upstream assets; Shell is disposing of some non-operated oil field assets in Malaysia; and industry sources indicate that several more significant Asian disposals are under consideration by the oil majors in the near future.

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But why are they selling? With the exception of Pertamina's sale, what is noticeable about the assets being sold is that they are all disposals of relatively mature producing assets by majors or large independent oil companies that are rationalising their portfolios as part of their transition to a lower hydrocarbon future.

While the oil majors routinely manage their portfolios on an ongoing basis, this time there are two distinct factors at play driving the selection of which assets to sell:

1. The 2014-16 oil price crash (when Brent fell to US\$30 per barrel (bbl)), which has been compounded by the 2020 price crash (when Brent fell below US\$20 per bbl), driving the sale of high operating cost assets to leave the oil majors targeting a portfolio of assets with operating costs below US\$40 per bbl.
2. The strategic drive announced by most major oil companies to reduce carbon emissions from their operations, often targeting net zero emissions, by some future date. As fields age, their operating cost per bbl typically rises as a result of increasing maintenance costs and decreasing production volumes. Older fields also typically have less efficient production technology, which leads to higher greenhouse emissions. Retrofitting new technology that would reduce or eliminate these emissions is an expensive business.

Many of the assets for sale in Asia meet one or both of these criteria. And, in Asia at least, selling older assets has the added benefit of passing the field abandonment liability to the buyer.

So who is buying these unwanted fields? With the oil majors steadily reducing their footprint in Asia, a new breed of Asian oil company has emerged. Companies like Hibiscus, Udenna, Jadestone, Batavia, and Sunda Gas, plus several other start-ups that are looking for a first asset. A second group of potential buyers includes private equity backed independents like Neptune and Harbour, which are focused on the United Kingdom's North Sea but have acquired some Asian assets as part of corporate acquisitions and have indicated they are now considering whether or not to invest further in Asia.

These Asian assets currently up for sale are attractive to these type of buyers for a number of reasons:

- They have upside potential through the implementation of lower cost operations, application of new technology and advanced reservoir management, which can increase field production and recovery and prolong field life.

- They may have upside prospects that are material for a smaller oil company but would not be developed by an oil major that holds a large portfolio of more profitable options.
- They are producing and generating strong near-term cash flows, which enables acquisition finance.

## A new breed of Asian oil company has emerged

While the usual upstream M&A issues exist (establishing an oil price for valuation, abandonment liabilities, *etc*), the biggest issue facing the Asian upstream M&A market is the lack, or cost of, finance. With the strong focus on the transition to renewable energy, many of the conventional bank lenders have ceased lending to hydrocarbon projects, leaving only a small pool of banks still active in this sector. This has been coupled with a similar reduction in interest by many of the energy investment funds which, in the past, had targeted this market.

This gap has been partly filled by the big commodity traders stepping in and providing loans, often linked to offtake and/or hedging programmes, but the lack of competition amongst lenders has significantly driven up borrowing costs, if funds can be obtained at all. This lack of finance or its high cost, has a number of implications for the market:

- Expensive acquisition finance is available for producing assets and some buyers.
- Some buyers can raise acquisition finance but struggle to raise the inevitable equity component of the purchase price.
- There is little appetite for lending for the acquisition of development assets, where subsequent development capital is required.

These factors are all likely to depress upstream assets prices to some degree.

There may, however, be a glimmer of hope. As part of the drive to transition to a non-hydrocarbon energy future, a lot of energy funds have been targeting the renewable energy market, but all this competition has raised asset prices and depressed returns. In a [recent article](#), Equinor indicated that its renewable assets were generating project returns of between 4 per cent and 8 per cent, which is substantially lower than the typical returns offered by upstream assets.

If this experience is shared by other energy investment funds, then it is clear that there is an opportunity for funds focused on value investing to continue to invest in hydrocarbons. The long term transition to net zero is the established goal, but the world currently still relies on oil. Targeted investment will help to make the hydrocarbon industry cleaner and more efficient until that net zero goal is achieved.



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# ENGLISH HIGH COURT SANCTIONS RESTRUCTURING OF DTEK GROUP

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The recent restructuring of DTEK Group provides guidance regarding the English High Court’s position on challenges to the international effectiveness of schemes of arrangement and/or restructuring plans post-Brexit.

DTEK Energy BV, an energy company headquartered in Ukraine, and certain of its subsidiaries restructured over US\$2 billion of their existing indebtedness by means of two inter-conditional schemes of arrangement (consisting of a bank scheme and a notes scheme), which were sanctioned by the English High Court on 14 May 2021.

## CREDITOR CHALLENGE

Whilst the schemes received the support of significant majorities of the lenders and holders (over 95 per

cent), the bank scheme was opposed by a creditor, Gazprombank (Switzerland) Ltd. Accordingly, the restructuring faced the first challenge to the international effectiveness of a scheme of arrangement post-Brexit.

Gazprombank argued, amongst other reasons, that the bank scheme should not be sanctioned as it would not be effective in key jurisdictions (including the European Union and Singapore) and so would not achieve its purpose. Accordingly, Gazprombank submitted that “any grant of sanction would be an act in vain”.

The Court rejected Gazprombank’s arguments and noted the following:

1. Whilst there has always been uncertainty, even pre-Brexit, as to whether schemes of arrangement would be automatically recognised in the European Union on the basis of the [Judgments Regulation](#), the unavailability of the Judgments Regulation post-Brexit was not by itself a sufficient ground upon

which to assess international effectiveness. The Court will continue to consider expert evidence that demonstrates alternative bases for recognition, such as under private international law and the [Rome I Regulation](#) etc., as it had done pre-Brexit.

2. The Court will regard a scheme of arrangement as substantially effective if it has very solid support amongst scheme creditors (over 95 per cent in this case).
3. The Court did not accept Gazprombank’s argument that its ongoing arbitration with DTEK in Singapore may result in the bank scheme not being effective. The Court held that there was a reasonable prospect that the arbitral tribunal would, when applying English law in the arbitration, give effect to the bank scheme.
4. There was no dispute that the bank scheme would be recognised in the key jurisdictions of Ukraine and Switzerland.
5. The Court was satisfied that the expert evidence cited by DTEK in relation to the recognition of the schemes in the Netherlands and Cyprus demonstrated that there was a reasonable prospect that the bank scheme and the variations and discharges which it implemented would be effective in those jurisdictions on the basis of private international law and the Rome I Regulation.

The Court was therefore satisfied that there was a reasonable prospect that the bank scheme would be given substantial effect and both schemes were sanctioned.

The Court’s judgment indicates that a challenge to the international effectiveness of a scheme of arrangement will only prove successful where there is clear evidence that there is no reasonable prospect that it will have substantial effect in the relevant jurisdictions.



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