

SHEARMAN & STERLING

Energy & Infrastructure Insight

Winter 2021 – Issue 5

“They are very thoughtful around problems and can get things done quickly. They’re a big firm who can draw on experience, especially their cross-border teams.”

Chambers and Partners 2021

2 FROM THE EDITORS: FOREWORD

4 INSIGHTS

- 04** Spotlight: U.S. Gulf Coast Offshore Wind Spurs Energy Innovation
- 08** Cross-border Renewable Power in Asia: A Sustainable Surge?
- 12** New Bipartisan Senate Infrastructure Bill Emphasizes Reauthorization, Research, Resilience and Reliability
- 24** Hydrogen Economy: Roadmap of European Regulatory Developments
- 32** Increasing Assertiveness of EU Courts in the Energy Sector
- 36** The Rise of Carbon Offsetting
- 40** Proposed Easing of Foreign Investment Restrictions in the Philippines
- 44** Dispute Resolution under the CBAM

48 ABOUT SHEARMAN & STERLING

From the Editors

We are delighted to bring you the fifth edition of our Energy & Infrastructure Insight, providing expert information and analysis of the current issues facing the energy and infrastructure sectors across the globe.

Energy transition is a pivotal global topic that has attracted widespread interest. In this latest edition, we provide a roadmap of the key European regulatory developments relevant to hydrogen in 2021. Hydrogen has clearly become central to the European Commission's decarbonization agenda.

Carbon offset credits provide a credible method of lowering various sectors' carbon footprint and achieving emissions reduction targets. We examine how carbon offset credits are issued for sale and we review the various carbon offset projects that are available for credit purchasers.

On July 14, 2021, the European Commission published its proposal for a Carbon Border Adjustment Mechanism ("**CBAM**") which will be phased in from 2023 and be fully operational in 2026. We describe how CBAM certificates will work, how they are designed to reduce carbon leakage, and which sectors they will apply to. We also offer some insight into the expected avenues for appealing CBAM-related decisions.

We also look at the recent trend of courts within the EU – both at the EU and individual Member State levels – becoming increasingly assertive in adjudicating energy-related matters.

In the United States, we examine how offshore wind presents a significant opportunity for local economic growth and job creation. We also consider the new bipartisan Senate infrastructure bill that emphasizes reauthorization, research, resilience and reliability. If passed, this bill will provide more than \$1 trillion in improvements to the nation's physical infrastructure.

In Asia, we consider the challenges of cross-border renewable independent power projects. We also look at the changes to foreign ownership restrictions in the Philippines and the impact on the energy sector.

We hope you find this latest edition both interesting and informative. If you have any questions regarding this edition or would like to discuss any of the topics further, then please get in touch with any of our contributors.

From Shearman & Sterling

01





INSIGHTS

In the transition to cleaner and more secure domestic energy sources, offshore wind presents a significant opportunity for local economic growth and job creation. Notably, on June 8, the U.S. Department of the Interior announced its intent to assess potential opportunities to advance clean energy development on the Gulf of Mexico outer continental shelf.

Continued overleaf

Spotlight: U.S. Gulf Coast Offshore Wind Spurs Energy Innovation

BY ROBERT FREEDMAN, OMAR SAMJI, GABRIEL SALINAS AND ERIN KAUFMAN

Spotlight: U.S. Gulf Coast Offshore Wind Spurs Energy Innovation

01

Here is a link to our recent client alert on the topic:

[Gulf Coast Offshore Wind Spurs Energy Innovation | Shearman & Sterling.](#)

Offshore wind has the significant advantage of being located close to population centers along the U.S. coasts. Locating offshore wind farms near populated or industrial areas can help reduce the amount of energy sourced from non-renewable sources. Offshore wind serves as a compelling alternative to long-distance transmission of onshore electricity generation.¹

The National Renewable Energy Laboratory evaluated multiple clean energy technologies for resource adequacy, technology readiness and cost competitiveness, and found that offshore wind in the Gulf of Mexico has the highest technical resource potential — 508 gigawatts.²

In particular, significant potential lies off the coasts of Texas and Louisiana. The U.S. Department of the Interior’s Bureau of Ocean Energy Management has noted that the “Gulf Coast States comprise 32 percent of the shallow-water offshore wind potential in the United States, with the highest potential wind resources off the Texas and Louisiana coasts.”³

Still, challenges to offshore wind development remain. The barriers to offshore wind development continue to include the mitigation of impacts on the environment, the technical challenges of installation and the challenges related to grid interconnection.

1. U.S. Department of the Interior Bureau of Ocean Energy Management. "Renewable Energy on the Outer Continental Shelf."
2. Musial, W., Beiter, P., Stefek, J., Scott, G., Heimiller, D., Stehly, T., Tegen, S., Roberts, O., Greco, T., Keyser, D. (National Renewable Energy Laboratory and the Alliance for Sustainable Energy, LLC, Golden, CO), 2020. Offshore wind in the US Gulf of Mexico: regional economic modeling and site-specific analyses. New Orleans (LA): Bureau of Ocean Energy Management. 94 p. Contract No.:M17PG00012. Report No.: OCS Study BOEM 2020-018.
3. U.S. Department of the Interior Bureau of Ocean Energy Management, June 8, 2021. "BOEM Gulf of Mexico Regional Task Force Meeting on Renewable Energy."
4. U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, Wind Energy Technologies Office. "Offshore Wind Market Acceleration Projects — Environmental Surveys, Monitoring Tools, and Resources."
5. U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, Wind Energy Technologies Office. "Offshore Wind Research and Development."
6. U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, Wind Energy Technologies Office. "Offshore Wind Market Acceleration Projects — Transmission Planning and Interconnection Studies."

Environmental surveys, monitoring tools and resources are employed to understand the impact of offshore wind construction on wildlife and marine life. This information can be used to guide energy developers on how to implement sustainable ocean energy projects.⁴

Due to the nature of offshore wind projects, there is an increased risk of corrosion and damage to the offshore wind systems. As such, the systems must be designed to withstand the wear and corrosion that results from exposure to seawater.⁵ Finally, operating changes and equipment upgrades will likely be required to facilitate and integrate offshore wind on a widespread basis.⁶



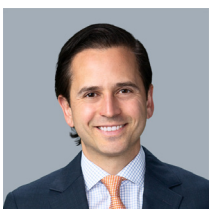
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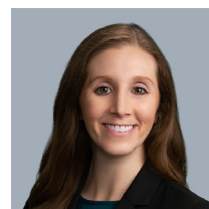
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02



Climate change concerns are rising alongside the surge in demand for power in Asia. Asian governments have made varying pledges, including net-zero pledges, to reduce greenhouse gas emissions over the coming years, and to significantly increase power generation from renewables.

However, there is an increasing recognition that: (a) the best and most cost-effective renewable resources are not always located in the countries that are seeking to increase their renewable installed capacity; and (b) renewables can have a very large land footprint per megawatt (“**MW**”), which for densely populated and space constrained countries in the region can make developing them more challenging.

Continued overleaf

Cross-border Renewable Power in Asia: A Sustainable Surge?

The first of a three-part series on the challenges of cross-border Independent Power Projects (“IPPs”)

BY JEAN-LOUIS NEVES MANDELLI AND JOE FREEMAN

Cross-border Renewable Power in Asia: A Sustainable Surge?

02

Against this backdrop, a recent trend of cross-border renewable IPPs is emerging and is a potential game-changer. Early cross-border power projects in Asia, such as the Nepal-India Upper Karnali project, Azad Jammu & Kashmir-Pakistan New Bong Escape, Patrind and Gulpur projects and the Georgia-Turkey export projects we advised on, were based on non-intermittent hydropower either fully exported, or only exported during high water seasons. More recent cross-border projects like the Lao PDR-Vietnam Monsoon Wind Project and the Singapore 100MW import tender from Malaysia are based on intermittent sources such as wind or solar.

The geographical layout and the comparative advantages in demand for power and supply of natural renewable resources among Asian countries make a strong case for cross-border renewable IPPs. However, they also throw up a number of specific challenges due to them involving power generation assets in one country, but power sales and revenue generation in another country. These include greater transmission risk, additional licensing and regulatory complexity, as well as the need for different political risk and currency and termination risk management structures.

In this first part of the series, we focus on the additional transmission risks associated with cross-border IPPs.

In cross-border IPPs, the delivery point for the power is usually at the border between the two countries. To deliver power, additional transmission infrastructure often has to be developed in both countries (and can be much longer than in conventional IPPs), giving rise to significant bankability issues.

A key consideration, which drives the risk allocation on managing transmission risk in cross-border IPPs, is who should have responsibility for transmission/connection both within the generating country and the importing country.

A. TRANSMISSION ASSETS WITHIN GENERATING COUNTRY

The two main options to connect the generation assets to the delivery point at the border are to either have the project build and operate the transmission assets or for the project to use third party transmission assets. Both these structures are being considered in the renewable cross-border IPPs under development in the region.

Project company builds and operates transmission lines

This approach tends to be more common, and the one which facilitates bankability since the transmission assets are within the project scope. This means the project company has control and oversight over the construction and operation of the assets and can insure them.

In this case, a key issue tends to be whether the project company will secure an EPC wrap that covers the construction of both the project and the transmission line and allocates a single point responsibility for both to the EPC contractor. While this option may be pricier, it will improve the bankability of the project.

In its absence, sponsors and lenders will require assurance that the project-on-project risk has been appropriately mitigated. Given the value of the transmission EPC contract will usually be significantly lower than that of the rest of the project, contractual remedies such as liquidated damages for delay are unlikely to keep the project company whole. Therefore, sponsors and lenders will need to look at other pragmatic solutions to mitigate the key risks associated with the construction of transmission lines (such as the acquisition of land rights).

It is not uncommon for sponsors to consider building transmission infrastructure that can accommodate more than their own power generation capacity if there are other potential projects in the area that can also make use of the same transmission facilities. This can result in long-term cost savings for the project company developing them (for instance if third-party users pay a fee covering their share of the capital expenditure and operating costs). However, if it chooses to do so, careful consideration will need to be given to the impact on project economics (and the risk that these additional projects are not developed). Careful structuring of the sharing arrangements will also be required to ensure the projects remain bankable despite having multiple users. A number of different options can be considered for this, from insolvency remote Special Purpose Vehicles who own the transmission assets, to a synthetic ownership arrangement with the third-party user.

Third party builds and operates transmission lines

This is, for instance, the approach that is being proposed for the Singapore 100MW Import Tender, whereby importers are required to use the existing interconnector between Malaysia and Singapore, which is separately owned and operated. In these circumstances, since the project company is dependent on a third party's assets to reach the power delivery point, its sponsors and lenders will need to consider how to manage the risk of the transmission assets being unavailable (e.g., due to damage). Only limited insurance will be possible as the project does not own the transmission assets, so understanding the contingency options and redundancies available to mitigate these circumstances will usually be a key focus.

If the transmission assets are to be built by a third party concurrently with the construction of the project, it will be critical for the project company to have visibility on the construction and ensure proper protections if the transmission lines are not available on time.

B. TRANSMISSION ASSETS WITHIN IMPORTING COUNTRY

As with any IPP, lenders will want the risk of any delays in constructing the interconnection equipment and any unavailability of the grid to be allocated appropriately, including the issue of compensation for lost revenues. This risk tends to be allocated to the buyer in the importing country, given the delivery point is typically at the border with the generating country, following a more typical regional IPP structure where grid risk below the delivery point is taken by the offtaker.

That said, this is not the universal position taken. For instance, in developed power markets like Singapore, the curtailment risk under the 100MW Import Tender is allocated to the importer, reflecting the stronger grid reliability than in some of the less developed power markets in the region.



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03





INSIGHTS

On August 10, a group of 19 Republican Senators joined their Democratic colleagues in approving a bill that, if passed by the House of Representatives and signed by President Biden, would provide for more than \$1 trillion in improvements to the nation's physical infrastructure.¹

Continued overleaf

New Bipartisan Senate Infrastructure Bill Emphasizes Reauthorization, Research, Resilience and Reliability

BY PAUL EPSTEIN AND JESSE VAN GENUGTEN

New Bipartisan Senate Infrastructure Bill Emphasizes Reauthorization, Research, Resilience and Reliability

03

The 69–30 vote expressed strong, bipartisan support for two key imperatives that permeate the more than 2700-page bill: first, to improve the nation’s existing infrastructure, a significant portion of which is in a deficient state and has long suffered from underfunding; and second, to design, construct and/or manufacture new infrastructure, or retrofit existing infrastructure, and develop new technologies, to address the impact of climate change and the need for energy resilience and reliability.

EXECUTIVE SUMMARY

The Senate bill, titled the Infrastructure Investment and Jobs Act (“**IJA**”), largely tracks the terms set out in the bipartisan compromise plan released by a group of Democratic and Republican Senators at the end of June, which was referred to as the Bipartisan Infrastructure Framework.² The IJA allocates \$550 billion in new infrastructure spending, which, combined with baseline spending, would amount to approximately \$1.2 trillion in new investment over the next eight years – similar in scale to the \$579 billion in new spending identified in the Framework. The somewhat reduced overall spending proposal reflects a reduction in allocation to transit and a reconnecting communities initiative.

Similar to the Framework, the IJA’s investment “uses” are broad. The bill offers \$282.5 billion in new spending for transportation infrastructure, including funds for roads, bridges, transit, electric vehicle (“**EV**”) infrastructure, electric buses, airports, ports and waterways, and another \$269 billion for other forms of infrastructure including water, broadband,

environmental, power and resilience infrastructure.

The bill also reflects the Biden administration’s and supporting Senators’ recognition of the role of private investment in facilitating or implementing necessary upgrades to public infrastructure, as several proposals either permit or require contracting with the private sector as an effective means to advance such upgrades and development of related technology, including through public-private partnerships (“**P3s**”).³

Below we outline several of the IJA’s specific proposals that are notable for our clients, including private and public investors and lenders in the energy and infrastructure sectors.

REAUTHORIZATION AND EXPANSION OF INFRASTRUCTURE FINANCING PROGRAMS

Several key U.S. federal government financing programs that support infrastructure development and growth receive significant attention in the IJA, in particular the Transportation Infrastructure Finance and Innovation Act (“**TIFIA**”), the Water Infrastructure Finance and Innovation Act (“**WIFIA**”) and the newly-proposed Carbon Dioxide Transportation Infrastructure Finance and Innovation Act (“**CIFIA**”). Below we describe these material developments. Notably, one proposal in the Framework that is absent from the IJA is a cross-sectoral Infrastructure Financing Authority, which was envisioned to supplement TIFIA, WIFIA and other federal programs.

TIFIA

The IJA would expand the scope of the TIFIA program, which supports large-scale surface transportation projects, including highways, transit and railroad, to eligible airport-related projects, which include, among other things, airport development or planning and certain terminal development projects.⁴ Funding for such airport-related projects would be capped, for each fiscal year, at 15 percent of the amounts made available to carry out the TIFIA program for that fiscal year; and for the period of federal fiscal years (FY) from FY 2022 through FY 2026, 15 percent of unobligated carryover balances (as of October 1, 2021). The expansion of the scope of TIFIA eligibility to airports would be meaningful, as TIFIA has leveraged significant private investment in road, bridge, tunnel and transit projects, particularly since the passage of the “MAP-21” legislation in 2012. Even at such capped amounts, the availability of flexible long-term, low-interest-rate financing to fund airport improvements could similarly spur private investment in the sector. The IJA also extends funding for the TIFIA program through FY 2026 at existing levels.

The IJA indicates support for investments by TIFIA in P3s by recognizing the program’s value in supporting such investments. However, it also provides for additional Congressional oversight of such investments by requiring a “value-for-money” analysis by the public contracting authority as a condition to the extension of a TIFIA loan to a P3 project.⁵ Similarly, the bill requires a value-for-money analysis for transportation projects funded by the TIFIA or Railroad Rehabilitation and Improvement Financing (“**RRIF**”) programs with project

1. Andrew Duehren, [Senate Passes Bipartisan Infrastructure Bill](#), *The Wall Street Journal*, August 10, 2021.
2. As discussed in our prior client alert, "[Bipartisan Infrastructure Framework Includes Significant Private Investment](#)"
3. Mary Clare Jalonick, [What's Inside the Senate's Bipartisan Infrastructure Bill](#), *AP News*, August 11, 2021.
4. Infrastructure Investment and Jobs Act, H.R. 3684, Division A, Title II, Section 12001; see also 49 U.S.C. § 40117.
5. H.R. 3684, Division A, Title XV, Section 11508.
6. H.R. 3684, Division G, Title VII, Section 70701.
7. U.S. Environmental Protection Agency, [EPA Announces \\$569 Million WIFIA Loan for Flood, Climate Resilience in the Fargo-Moorhead Metropolitan Area](#), June 18, 2021.
8. U.S. Senate, [Drinking Water and Wastewater Infrastructure Act of 2021](#), April 14, 2021.
9. H.R. 3684, Division D, Title III.
10. H.R. 3684, Division D, Title III, Subtitle A.
11. H.R. 3684, Division D, Title III, Section 40304.

costs in excess of \$750 million where the source of repayment consists of user fees or other amounts generated by the project. Such analysis would include the life-cycle cost and project delivery schedule; the costs of using public funding versus private financing for the project; a description of the key assumptions made in developing the analysis (including any federal grants or loans and subsidies received or expected; the key terms of the proposed P3 agreement (including the expected rate of return for private debt and equity), and major compensation events; a discussion of the benefits and costs associated with the allocation of risk; the determination of risk premiums assigned to various project delivery scenarios; assumptions about use, demand and any user fee revenue generated by the project; and any externality benefits for the public generated by the project); and a forecast of user fees and other revenues expected to be generated by the project.⁶

WIFIA and State Revolving Funds

The IIJA reauthorizes several existing programs and funds new programs in the water and waste sectors. It would extend through FY 2026 at existing levels the funding for the WIFIA program administered by the U.S. Environmental Protection Agency ("EPA"), which, since 2017, has offered low-interest loans to water-related infrastructure projects. This program hit the ground running and has been particularly successful, having extended more than 50 loans during this period that are providing approximately \$10.5 billion in credit assistance to help finance more than \$23 billion for water infrastructure.⁷

Due in part to this success, for the first time the IIJA would allocate funding to the U.S. Army Corps of Engineers to administer its own WIFIA program, providing \$64 million to cover the cost to the government of direct loans and guaranteed loans. This allocation would permit the Army Corps to fund a portion of needed safety projects to maintain, upgrade and repair dams identified in the National Inventory of Dams where the primary owner is a state, local government, public utility or private entity. The IIJA would also provide \$11 million for the Army Corps' administrative expenses in carrying out this program.

In addition, consistent with the Senate Drinking Water and Wastewater Infrastructure Act, which was passed by the Senate earlier this year,⁸ the IIJA would provide significantly increased funding for FY 2022 through FY 2026, for both the Clean Water State Revolving Loan Fund ("CWSRF") program, which supports state and municipal water quality infrastructure projects, and the Drinking Water State Revolving Fund ("DWSRF"), which supports state and municipal drinking water infrastructure projects.

CIFIA and Other Carbon-Capture Initiatives

An entire title of the IIJA is devoted to alternative fuels and technology investments. Within that title, the bill proposes a handful of new programs to support carbon capture, utilization, storage and transportation infrastructure.¹⁰ These programs could be meaningful to state and local governments committing to carbon-free energy goals and private entities capable of assisting such transition energy strategy.

A new loan program, the carbon dioxide transportation infrastructure finance and innovation program ("CIFIA"), would be established and housed at the U.S. Department of Energy ("DOE"). This program, which was not contemplated by the Framework, would extend loans and loan guarantees to support projects that involve the delivery of infrastructure (i.e., pipeline, shipping, rail or other infrastructure) and associated equipment for the transportation of carbon dioxide. The proposed language setting forth the requirements of this program is similar to the statutes that govern the TIFIA and WIFIA programs, including with respect to application requirements, program administration and loan parameters, such as the interest rate, maturity date and limits on subordination. However, this program specifically focuses on P3s.

Eligible CIFIA projects must have project costs in excess of \$100 million and satisfy certain other requirements described in the bill. In particular, while program applications would be submitted by a public entity, the ultimate obligor must be a private entity through a P3 and the federal credit instrument must be repayable, in whole or in part, from user fees, payments owing to the obligor under the P3 or other revenue sources that also secure or fund the project obligations.

Similar to TIFIA, WIFIA and numerous federal grant programs, the maximum "federal share" of project costs is 80 percent. Funding for the CIFIA program would be \$2.1 billion total, \$600 million per year for FY 2022 and FY 2023 and \$300 million per year for FY 2024 through FY 2026.¹¹

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New Bipartisan Senate Infrastructure Bill Emphasizes Reauthorization, Research, Resilience and Reliability

03

CIFIA is consistent with the objectives of the Biden administration to mitigate the adverse effects of carbon dioxide and catalyze the transition away from fossil fuels. The program is connected with two other initiatives in the IIJA: the bill would appropriate \$100 million for a front-end engineering and design program at DOE for carbon dioxide transportation projects linked to the development of capture, utilization and storage (“CCUS”) technologies¹² and \$2.5 billion to expand DOE’s Carbon Storage Validation and Testing program to include a large-scale carbon storage commercialization program.¹³ The bill would also make available \$3.5 billion in grant funding to projects that facilitate carbon capture. Such projects must contribute to the development of four “regional direct air capture hubs” to be designed by DOE, which (i) facilitate the deployment of direct air capture projects, have the capacity to capture and sequester, utilize, or sequester and utilize at least one million metric tons of carbon dioxide from the atmosphere annually from a single unit or multiple interconnected units; (ii) demonstrate the capture, processing, delivery and sequestration or end use of captured carbon; and (iii) could be developed into a regional or interregional carbon network to facilitate sequestration or carbon utilization.¹⁴

ELECTRIC VEHICLES AND ALTERNATIVE FUELS

A key element of the Biden administration’s energy transition plan is a national network of 500,000 EV charging stations. The IIJA would

increase the grant funding available for deployment of such stations and provide support for other forms of alternative fueling, including hydrogen fueling infrastructure, propane fueling infrastructure and natural gas fueling infrastructure. \$7.5 billion in total would be allocated to such initiatives,¹⁵ which are further described below. The IIJA separately allocates an additional \$7.5 billion to support the production and procurement of electric vehicles and low-carbon school buses and ferries.¹⁶

Charging and Fueling Grant Program

Grant funding for alternative fuels, which would be in the amount of \$2.5 billion and funded by the U.S. Department of Transportation (“DOT”), would be made available to state or local governments and other public entities. However, the public entities are required to apply such funds to contracts with private entities for the acquisition and installation of publicly accessible alternative fuel vehicle charging and fueling infrastructure that is directly related to the charging or fueling of a vehicle.

The grant application must describe how the public entities have considered the following, which support the role of the private sector in the expansion of vehicle charging and alternative fuel technology:

- collaborative engagement with public and private stakeholders to foster enhanced, coordinated, public-private or private investment in EV charging infrastructure, hydrogen fueling infrastructure, propane fueling infrastructure or natural gas fueling infrastructure and to expand the deployment of such infrastructure;

- infrastructure installation that can be responsive to technology advancements, such as accommodating autonomous vehicles, vehicle-to-grid technology and future charging methods; and
- the long-term operation and maintenance of the EV charging infrastructure, hydrogen fueling infrastructure, propane fueling infrastructure or natural gas fueling infrastructure to avoid stranded assets and protect the investment of public funds in that infrastructure.¹⁷

The infrastructure must be located on an “alternative fuel corridor” designated by DOT.¹⁸ A portion of the grant funds may also be contributed to the private entity for operation and maintenance costs during the first five years of operations. The maximum federal share of project costs is 80 percent and the private entity, as a condition to its funding contract, must agree to cover the remaining portion of project costs not paid by the federal government.

National Electric Vehicle Formula Program¹⁹

The bill would establish a new program at DOT (which would be a formula program available to all states, similar to other federal highway programs) dedicated to EV charging infrastructure. The funds would be used for the acquisition and installation, operation and maintenance and data sharing related to EV infrastructure. Funded projects must be directly related to the charging of a vehicle and must be open to the general public or to authorized commercial motor vehicle operators from more than one company. Similar to the Charging and Refueling Grant Program

12. H.R. 3684, Division D, Title III, Section 40303.
13. H.R. 3684, Division D, Title III, Section 40305.
14. H.R. 3684, Division D, Title III, Section 40308.
15. H.R. 3684, Division A, Title I, Section 11401.
16. H.R. 3684, Division G, Title XI.
17. H.R. 3684, Division A, Title I, Section 11401.
18. 23 U.S.C. § 151; see also Federal Highway Administration, [Alternative Fuel Corridors](#), last updated April 27, 2021.
19. H.R. 3684, Division A, Title I, Section 11101.
20. H.R. 3684, Division D, Title IV, Section 40431.
21. H.R. 3684, Division A, Title I, Section 11101.

22. H.R. 3684, Division D, Title III, Section 40313.
23. *Id.*
24. H.R. 3684, Division D, Title I, Section 40106.
25. H.R. 3684, Division D, Title I, Section 40103.
26. 42 U.S.C. § 17386.
27. H.R. 3684, Division D, Title I, Section 40107.
28. H.R. 3684, Division D, Title II.
29. H.R. 3684, Division D, Title II, Section 40207.

discussed above, the charging stations must be located along a designated “alternative fuel corridor” and the maximum federal share is 80 percent. While the public recipients of such grant funding would likely contract with the private sector for all or a portion of the necessary equipment or services, the bill would not require them to do so.

The bill also directs states to consider measures to promote greater electrification of the transportation sector, including the establishment of rates that promote affordable and equitable electric vehicle charging options, improve the customer experience associated with EV charging, including reducing wait times, accelerate third-party investment in public EV charging, and recover the marginal costs of delivering electricity to electric vehicles and EV charging infrastructure.²⁰ It would also establish a Joint Office of Energy and Transportation at DOT and DOE to facilitate, among other things, technical assistance and information sharing between the two agencies related to the deployment of EV infrastructure.²¹

Clean Hydrogen Development

Similar to the carbon capture regime described above, the IJJA would provide \$8 billion to establish at least four regional clean hydrogen hubs that, among other things, demonstrate the production, processing, delivery, storage and end-use of clean hydrogen. The bill would also provide \$1 billion for hydrogen research and development focused on the commercialization of clean hydrogen using electrolyzers (i.e., “green hydrogen”), and \$500 million for the advancement of clean hydrogen production, processing, delivery, storage and use.²² These hydrogen development

programs could be particularly significant given the current focus on ways to reduce the environmental impact associated with the production of hydrogen, which is an important alternative fuel and has various other industrial uses, including food processing, metal production and ammonia fertilizer for agricultural purposes.

Recognizing this importance to industry, the IJJA also calls on DOE, in carrying out these programs, to develop “a technologically and economically feasible national strategy and roadmap to facilitate widescale production, processing, delivery, storage and use of clean hydrogen.”²³

GRID INFRASTRUCTURE RELIABILITY AND RESILIENCE

The IJJA includes significant funding to increase the reliability and resilience of the electric grid and expand transmission capabilities, including through the development of new technologies and the use of renewable energy. Some of the key programs supporting these priorities are described below.

The Transmission Facilitation Program, a new initiative, would establish a revolving loan fund for the construction of new or upgraded power transmission lines. DOE would effectively serve as an “anchor-tenant” by purchasing up to 50 percent of the planned capacity of the line, which it then may sell after determining that the transmission project is financially viable. In connection with the program, DOE may also enter into P3s for eligible transmission projects.²⁴ In addition to allocating \$2.5 billion for the fund, the IJJA would authorize \$10 million for each

of FY 2022 through FY 2026 to carry out the program.

The new Upgrading Our Electric Grid Reliability and Resiliency program would provide financial assistance to projects that demonstrate innovative approaches to transmission, storage and distribution infrastructure to enhance the resilience and reliability of the grid. These approaches would be implemented by state public and publicly regulated entities on a cost-sharing basis. The IJJA would authorize \$5 billion for FY 2022 through FY 2026 for this program.²⁵

The Smart Grid Investment Matching Grant Program is an existing program that focuses on the development of technologies to enhance the flexibility of the power grid.²⁶ The program provides for matching grants from the federal government to complement a host of “smart grid” initiatives, including projects that rebalance the electrical system, facilitate the aggregation or integration of distributed energy resources, provide energy storage, provide voltage support, integrate intermittent generation sources, increase the network’s operational transfer capacity, and anticipate and mitigate impacts of extreme weather events or natural disasters on grid resilience. The IJJA would authorize \$3 billion for this program and would significantly expand the scope of eligible investments.²⁷

The bill also includes programs to expand supply chains for clean energy technologies,²⁸ including two \$3 billion grant programs for battery material processing and battery manufacturing and recycling.²⁹

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New Bipartisan Senate Infrastructure Bill Emphasizes Reauthorization, Research, Resilience and Reliability

03

OTHER TRANSPORTATION FUNDING

By reauthorizing existing surface transportation programs at current levels, the IIJA maintains traditional federal aid to states for necessary highway and other transportation spending.³⁰ The bill also includes new programmatic proposals for transportation. In particular, it would create a new dedicated grant program, the Bridge Investment Program, to replace and repair bridges and would increase funding or eligibility for major project competitive grant programs.³¹

The bill would also dedicate \$66 billion to passenger and freight rail, including funds to eliminate Amtrak's maintenance backlog, modernize the Northeast Corridor line and bring rail service to areas outside the northeast and mid-Atlantic regions. Although support for transit programs would be \$10 billion less than under the Framework (\$39 billion versus \$49 billion), the IIJA would still provide the largest federal investment in public transit in history and in passenger rail since the creation of Amtrak 50 years ago.³²

ASSET CONCESSIONS AND P3S

Similar to certain infrastructure plans proposed by the Trump administration, the IIJA includes measures that could incentivize private investment in public infrastructure through the monetization of the value of certain public assets through payments from private entities that would operate the asset under a long-term concession or lease.

Under the IIJA, an asset concession is described as an agreement under which an eligible entity (which are states,

localities and other public entities) agrees to enter into a concession agreement or long-term lease with the concessionaire relating to an approved infrastructure asset owned, controlled, or maintained by the eligible entity. In return, the concessionaire agrees to (i) provide an "asset concession payment," i.e., single or periodic payments for the fair market value of the asset; and (ii) maintain or exceed the condition, performance and service level of the approved infrastructure asset, as compared to the previous condition, performance and service level. In addition, the terms of the concession agreement cannot include a non-compete or exclusivity restriction (or any other similar restriction) on the approval of another project. The bill also prescribes that the costs for a fiscal year of the agreement or lease, and any project carried out under the agreement or lease, cannot be shifted to any taxpayer with an annual household income of less than \$400,000 per year, including through taxes, user fees, tolls or any other measure, for use of an approved infrastructure asset, although it does not provide a methodology for avoiding this cost transfer.

The bill would provide grants of up to \$2 million in technical assistance to support the organizational capacity of the eligible entity to develop, review or enter into an asset concession and another \$2 million to hire experts to study the feasibility of proceeding with an asset concession.³³

PAY FORS

The bill's authors presented a number of proposals for the "pay fors" or "sources" to cover its cost, consisting of estimated new revenues and savings.

30. See H.R. 3684, Division A, Section 1001 (referred to as the Surface Transportation Reauthorization Act of 2021).
31. The White House, [Updated Fact Sheet: Bipartisan Infrastructure Investment and Jobs Act](#), August 2, 2021; H.R. 3684, Division A, Title I, Subtitle A, Section 1118.
32. The White House, Updated Fact Sheet: Bipartisan Infrastructure Investment and Jobs Act, August 2, 2021.
33. H.R. 3684, Division G, Title X, 71001.
34. U.S. Chamber of Commerce, Bipartisan Infrastructure Investment and Jobs Act Summary: A Road to Stronger Economic Growth, available at <https://static.politico.com/7e/74/659737a14980a049b2b233aa43c9/bif-summary.pdf>
35. Andrew Duehren, [CBO Estimates Infrastructure Bill Would Add \\$256 Billion to Deficits](#), *The Wall Street Journal*, August 6, 2021; see also Alexander Bolton, [CBO Says Bipartisan Infrastructure Bill Would Add \\$256B to Deficit Over 10 Years](#), August 5, 2021.
36. Gabriel T. Rubin et al., [What's in Biden's American Families Plan? From Taxes to Child Care?](#), *The Wall Street Journal*, April 28, 2021.
37. Jonathan Weisman, [House Moderates Say They Won't Back Budget Vote Until Infrastructure Bill Passes](#), August 13, 2021.
38. *Id.*
39. *Id.*
40. [Tony Romm et al., House Democrats delay planned vote on \\$1 trillion infrastructure bill amid dispute between party moderates and liberals](#), *Washington Post*, September 30, 2021.

The most significant of these sources are the repurposing of unused COVID relief funds, a delay in the payment of a rebate under a Medicare rule, the return by states of unused federal unemployment benefits and sales of future wireless spectrum auctions by the Federal Communications Commission. This analysis also includes an estimate of economic growth (which is assumed to be significant) resulting from the “return on investment” that investment in the nation’s infrastructure will generate.³⁴ In a separate analysis, however, the Congressional Budget Office estimated that the draft bill would add \$256 billion to the deficit over the next 10 years.³⁵ The pay fors will be a major discussion topic in the House and as the bill proceeds toward passage.

NEXT STEPS

Although the IJA reflects an agreement by the Senate on physical infrastructure, significant hurdles remain in Congress before the bill can become law. The majority of the group of progressive Democrats in the House (the Congressional Progressive Caucus) support linking passage of the infrastructure bill to a \$3.5 billion social policy package that includes initiatives from President Biden’s American Families Plan, such as for childcare, elder care and education,³⁶ and other clean-energy priorities.³⁷

Reflecting this agenda, immediately following passage of the infrastructure bill, the Senate voted along party lines, 50–49, to approve a budget resolution to commence work on the \$3.5 billion

social policy package. Passage of such resolution by the House would facilitate passage of the social policy package in the Senate through the budget reconciliation process, which requires only a simple majority vote.³⁸

The process to finalize both bills has been challenging in each chamber of Congress. An initial challenge was presented shortly after passage of the IJA by the Senate, when nine moderate Democrats in the House countered the Congressional Progressive Caucus’s stance by asserting that they would not vote for the budget resolution related to the social policy package until after the infrastructure bill is passed. These nine votes would be enough to block consideration of the budget resolution, as the Democrats hold only a slim three-seat majority in the House.³⁹

To mollify the moderates, Speaker of the House Nancy Pelosi indicated that there would be a vote on the infrastructure bill in the House by the end of September. September 30 passed without such a vote, with members of the Congressional Progressive Caucus insisting on a concurrent vote on the social policy package, and certain moderates proposing modifications to that package which the progressives were unwilling to support. As of the morning of October 1, the White House and Democratic leadership were working to bring both sides together, in particular to facilitate a vote on the infrastructure bill.⁴⁰

Our infrastructure and energy teams will continue to closely follow developments related to the infrastructure bill and related legislation and initiatives.

In the table on the next page, we provide a comparison between President Biden’s original proposal, the Republican counterproposal, the bipartisan Framework and the IJA.

CONTINUED >

New Bipartisan Senate Infrastructure Bill Emphasizes Reauthorization, Research, Resilience and Reliability



Infrastructure Plan Comparison			
BIDEN PROPOSAL (AJP) ⁴¹ : \$2.3 TRILLION	REPUBLICAN PROPOSAL (ROADMAP) ⁴² : \$568 BILLION [NOTE: INCLUDES EXISTING SPENDING PROGRAMS]	BIPARTISAN FRAMEWORK ⁴³ : \$579 BILLION	SENATE BILL (IIFA) ⁴⁴ \$550 BILLION
Transportation Infrastructure: \$621 billion	Transportation Infrastructure: \$454 billion	Transportation Infrastructure: \$312 billion [Note: Includes \$20 billion for an Infrastructure Financing Authority]	Transportation Infrastructure: \$282.5 billion
\$174 billion – EV initiatives	No funding for EV initiatives	\$15 billion – EV infrastructure, electric buses and electric transit	\$15 billion – EV infrastructure, electric buses and electric transit
\$115 billion – highway and road repair	\$299 billion – road and bridge repair	\$109 billion – roads, bridges and major projects	\$109 billion – roads, bridges and major projects
\$85 billion – modernize transit facilities and fund transit expansion	\$61 billion – public transit system	\$49 billion – public transit	\$39 billion – public transit
\$80 billion – passenger and freight rail service	\$20 billion – rail system	\$66 billion – passenger and freight rail	\$66 billion – passenger and freight rail
\$20 billion – road safety initiatives	\$13 billion – safety programs	\$11 billion – safety programs	\$11 billion – safety programs
\$17 billion – inland waterways, coastal ports and land ports	\$17 billion – ports and inland waterways	\$16 billion – ports and waterways	\$17 billion – ports and waterways
\$25 billion – airports	\$44 billion – airports	\$25 billion – airports	\$25 billion – airports
\$25 billion – large, complex projects		\$1 billion – reconnecting communities	\$500 million – reconnecting communities
\$20 billion – projects redressing historic transportation inequities			
Water Infrastructure: \$111 billion	Water Infrastructure: \$49 billion	Water Infrastructure: \$55 billion	Water Infrastructure: \$55 billion
\$56 billion – upgrade drinking water, wastewater and stormwater systems	\$35 billion – drinking water and wastewater systems	Deliver clean drinking water to underserved communities, tribal nations and schools	Deliver clean drinking water to underserved communities, tribal nations and schools
\$45 billion – eliminate all lead pipes	\$14 billion – water storage	Eliminate lead pipes	Eliminate lead pipes
\$10 billion – remediate chemical substances in drinking water and invest in rural systems			

41. The White House, [Fact Sheet: The American Jobs Plan](#), March 31, 2021.
42. Senate Committee on Environment and Public Works, [The Republican Roadmap: A Framework to Improve the Nation's Infrastructure](#), April 22, 2021.
43. The White House, [Fact Sheet: President Biden Announces Support for the Bipartisan Infrastructure Framework](#), June 24, 2021.
44. U.S. Senate, [Infrastructure Investment and Jobs Act](#), August 10, 2021.

Infrastructure Plan Comparison			
BIDEN PROPOSAL (AJP) ⁴¹ : \$2.3 TRILLION	REPUBLICAN PROPOSAL (ROADMAP) ⁴² : \$568 BILLION [NOTE: INCLUDES EXISTING SPENDING PROGRAMS]	BIPARTISAN FRAMEWORK ⁴³ : \$579 BILLION	SENATE BILL (IIJA) ⁴⁴ \$550 BILLION
		Western Water Storage: \$5 billion	Western Water Storage: \$8 billion
Power and Other Energy: \$100 billion		Power and Other Energy: \$73 billion	Power and Other Energy: \$73 billion
Create investment tax credit to support buildout of 20 gigawatts of high-voltage transmission lines and establishment of Grid Deployment Authority at DOE		Upgrade power infrastructure, including the construction of new transmission lines to facilitate the expansion of renewable energy, including through a new Grid Authority	Upgrade power infrastructure, including the construction of new transmission lines to facilitate the expansion of renewable energy
Ten-year extension of investment tax credit and production tax credit for clean energy generation and storage		Invest in demonstration projects and research hubs for next generation technologies like clean hydrogen, carbon capture and advanced nuclear reactors	Invest in demonstration projects and research hubs for next generation technologies like clean hydrogen, carbon capture and advanced nuclear reactors
Plug orphan oil and gas wells and clean up abandoned mines			
Build next-generation, clean energy industries in distressed communities, including hydrogen and fuel and carbon capture deployment and storage			
Remediate and redevelop idle industrial and energy sites in distressed and disadvantaged communities			
Finance a Civilian Climate Corps to bolster conservation and environmental justice efforts			

CONTINUED >

New Bipartisan Senate Infrastructure Bill Emphasizes Reauthorization, Research, Resilience and Reliability



Infrastructure Plan Comparison			
BIDEN PROPOSAL (AJP) ⁴¹ : \$2.3 TRILLION	REPUBLICAN PROPOSAL (ROADMAP) ⁴² : \$568 BILLION [NOTE: INCLUDES EXISTING SPENDING PROGRAMS]	BIPARTISAN FRAMEWORK ⁴³ : \$579 BILLION	SENATE BILL (IIJA) ⁴⁴ \$550 BILLION
Digital Infrastructure: \$100 billion	Broadband Infrastructure: \$65 billion	Broadband Infrastructure: \$65 billion	Broadband Infrastructure: \$65 billion
Build high speed broadband infrastructure to cover 100 percent of the country		Connect every American to high speed internet	Connect every American to high speed internet
Reduce the cost and increase adoption of broadband internet service		Reduce prices for internet service and close digital divide	Reduce prices for internet service and close digital divide
Climate Resilience Infrastructure: \$50 billion		Resilience: \$47 billion	Resilience: \$47 billion
Safeguard critical infrastructure and services and defend vulnerable communities		Prepare infrastructure for the impacts of climate change, cyber-attacks and extreme weather events	Prepare infrastructure for the impacts of climate change, cyber-attacks and extreme weather events
Maximize the resilience of land and water resources to protect communities and the environment			
Social and Noncore Infrastructure: \$1.36 trillion		Environmental remediation: \$21 billion	Environmental remediation: \$21 billion
		Address legacy pollution through targeted clean-up efforts	Address legacy pollution through targeted clean-up efforts



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04

H_2 HYDROGEN POWER
CLEAN ENERGY OF THE FUTURE





INSIGHTS

Almost two years ago, the European Commission (“**EC**”) published its Green Deal, which mentions hydrogen only three times. Since then, hydrogen has come to the center-stage of the EC’s decarbonization agenda.

Continued overleaf

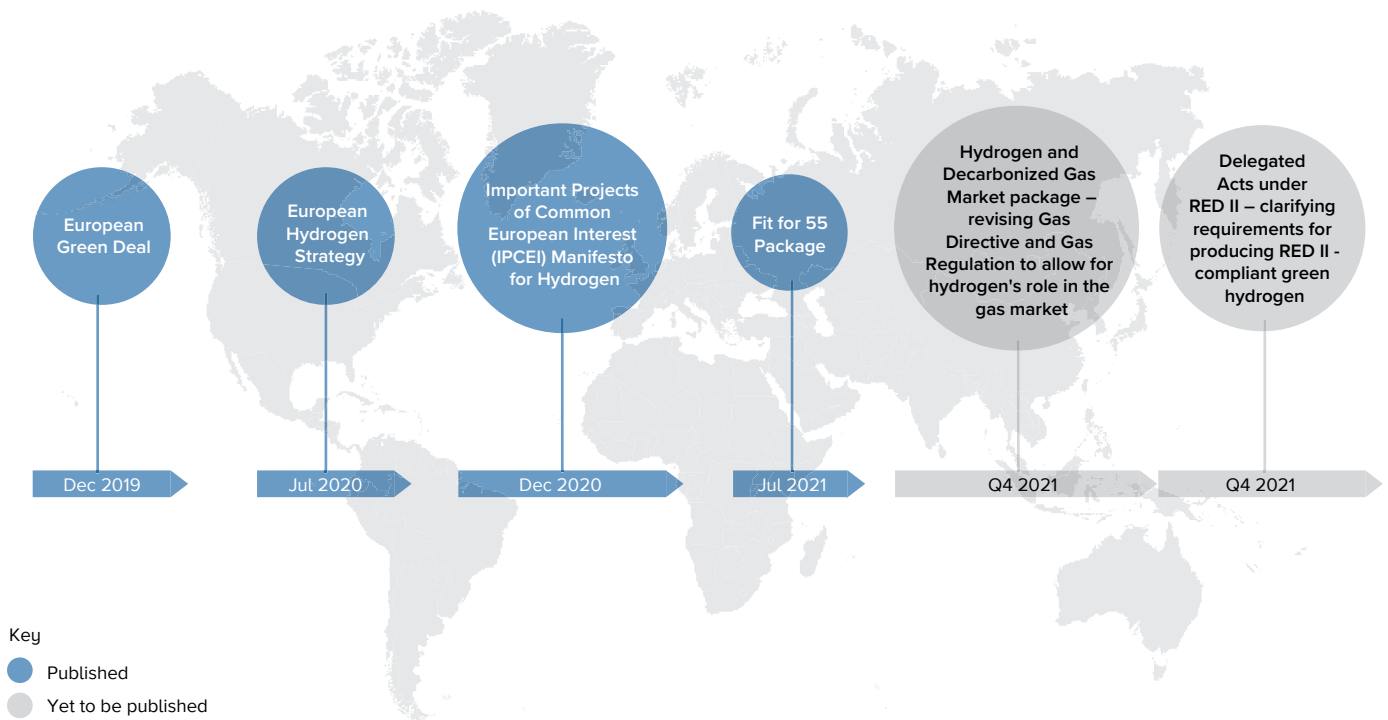
Hydrogen Economy: Roadmap of European Regulatory Developments

BY DAN FELDMAN, LACHLAN POUSTIE, PATRICK WOLFF AND FREDERICK LAZELL

Hydrogen Economy: Roadmap of European Regulatory Developments

04

TABLE: ROADMAP OF EUROPEAN REGULATORY DEVELOPMENTS (PUBLISHED AND EXPECTED):



INTRODUCTION

The EC’s Hydrogen Strategy followed in July 2020. A year later, on 14 July 2021, the EC tabled the [Fit for 55](#) package, a package of thirteen regulatory proposals designed to steer the European economy towards at least 55 percent greenhouse gas (“GHG”) emissions reductions compared to 1990 levels by 2030. Hydrogen is integral to the Fit for 55 package and therefore the EC’s vision for a decarbonized European economy.

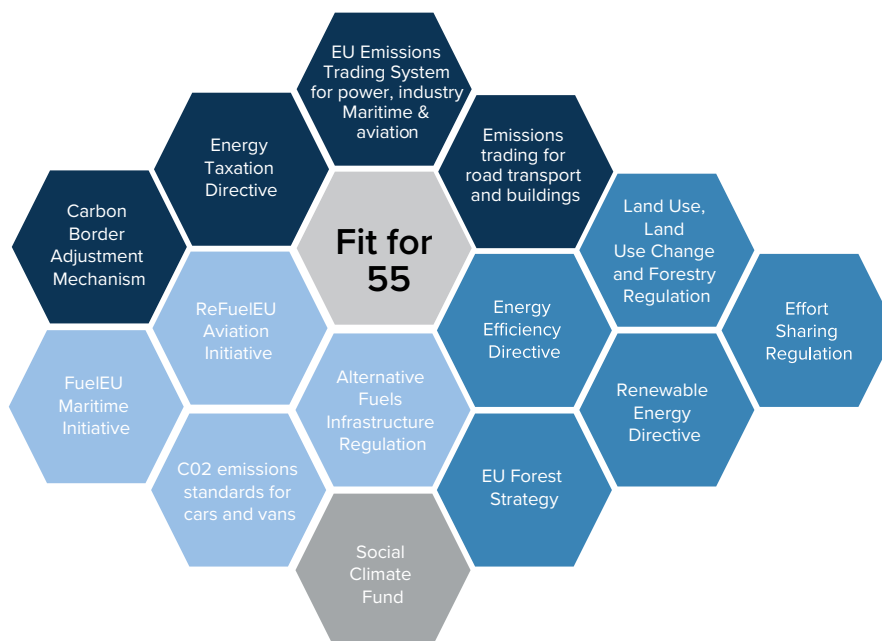
Is this, then, the beginning of the ‘hydrogen decade’ in Europe?

The EC’s Fit for 55 proposals must now be debated and adopted by both the European Parliament and the Council, whose formal position is expected in 2022. However, prolongation of post-election coalition discussions in Germany and the French presidential elections set for Q2 2022 may cause further delays to this process. It is also not certain that the Fit for 55 package will become law in its current form as it may require detailed

negotiations to address the national interests of individual Member States. The timing for Fit for 55 becoming law is therefore uncertain.

This article provides a roadmap of the key European regulatory developments relevant to hydrogen in 2021. It forms part of a series we have been publishing on European regulatory developments, previous instalments of which have focused on [green hydrogen](#) use in industry, and the [aluminum](#) and [steel industries](#).

TABLE: OVERVIEW OF THE FIT FOR 55 PACKAGE:



Source: European Commission and Carbon



Pricing

- Tightening of the Emissions Trading System and extension to maritime
- New Emissions Trading System for road transport and buildings
- Revisions to Energy Taxation Directive
- Proposal for a Carbon Border Adjustment Mechanism



Targets

- Updated Effort Sharing Regulation
- Updated Land Use, Land Use Change and Forestry Regulation
- Updated Renewable Energy Directive
- Updated Energy Efficiency Directive



Rules

- Stricter CO2 performance for cars and vans
- Deployment of infrastructure for alternative fuels
- ReFuelEU Aviation: more sustainable aviation fuels
- FuelEU Maritime: cleaner maritime fuels



Support Measures

- Social Climate Fund to support poorest households in coping with the costs of the energy transition

REVISED RENEWABLE ENERGY DIRECTIVE (“RED II”)

PROPOSALS

Prior to the Fit for 55 proposals, RED II defined targets for the adoption of hydrogen in the transport sector and set strict limitations on the manner in which such hydrogen could be produced.

Fit for 55 proposes extending RED II to apply to industrial use of hydrogen, including by the iron, steel, aluminum, chemicals, fertilizer (including ammonia), cement and construction industries.

Specifically:

- by 2030, European Member States must ensure that 50 percent of hydrogen used by such industries (either as feedstock or as an energy carrier) is ‘green’, i.e., compliant with the strict RED II requirements for renewable fuels of non-biological origin (“**RFNBO**”); and
- companies marketing industrial products as ‘green’ will need to publish the percentage of renewable energy and RFNBOs (i.e., green hydrogen) used in their entire lifecycle.

CONTINUED >

Hydrogen Economy: Roadmap of European Regulatory Developments

04

Future Developments

The EC is expected to publish two long-awaited Delegated Acts by the end of 2021 to clarify important aspects of the regulatory regime for RED II-compliant green hydrogen. These are expected to:

- specify the criteria for determining when electricity taken from the grid to power hydrogen production can be counted as renewable for the purposes of meeting RED II hydrogen production requirements; and
- define the GHG emissions benchmarks and calculation methodology for assessing whether green hydrogen achieves the required 70 percent emissions reduction compared to the relevant fossil fuel comparator under RED II.

The existing RED II includes strict sustainability criteria for green hydrogen production, such as demonstrating the additionality of renewable electricity used and imposing conditions on use of existing grids. Extending these requirements to hydrogen used in industry creates opportunities for non-European hydrogen producers to export green hydrogen to Europe, provided their projects are structured appropriately and subject to transport costs. This is because the additionality and grid-related requirements may be easier to satisfy in places outside Europe with lower local renewable electricity demand, abundant land, looser planning restrictions and reliable combinations of renewable resources such as sun, wind, hydro and geothermal power.

EUROPEAN EMISSIONS TRADING SYSTEM (“ETS”)

Proposals

The EC’s policy proposals aim to gradually strengthen the cost of GHG emissions under the ETS (e.g., by reducing the overall supply of allowances in the system and gradually reducing the number of free allowances that grant industrial installations a certain quantity of untaxed emissions) and expand its scope. In particular:

- all hydrogen production (regardless of the technology used) will be included in the ETS, which, in theory, makes all hydrogen production eligible for free allowances from 2026;
- the EU’s Innovation Fund will be expanded and a carbon contract for difference (“**CCfD**”) introduced, which is intended to incentivize investment in innovative climate-friendly technologies by paying investors a fixed price for GHG emissions reductions at a higher rate than the current price levels in the ETS; and
- the extension of the ETS to cover a greater share of emissions from maritime transport may incentivize the uptake of hydrogen-based fuels in the shipping industry.

Future Developments

The EC proposes revising the methodologies for calculating free allocation benchmarks to incentivize decarbonization (these have already been set for 2021-25). From 2026, green hydrogen producers may be able to claim free allowances under

the ETS. However, first, the EC will need to revise the rules which disincentivize electrification in certain sectors.

CONTINUED >

CARBON BORDER ADJUSTMENT MECHANISM (“CBAM”)

Proposals

The CBAM intends to impose a carbon price at the European border to imports of certain products, based on their embedded GHG emissions. It aims to prevent ‘carbon leakage’: economic behaviour caused by the ETS and other European climate regulation in which producers relocate production outside Europe to avoid the increasing costs of environmental compliance.

The CBAM is designed to set an equivalent carbon price on imports to the price that must be paid by European producers under the ETS, thereby maintaining compatibility with World Trade Organization (“WTO”) non-discrimination rules.

Key features of the CBAM include:

- it applies initially to imports of cement, iron, steel, aluminum, fertilizers (including ammonia) and electricity;
- parties only need to purchase CBAM certificates (from 2026) for direct (i.e., scope 1) emissions, while reporting on both their direct and indirect (i.e., scope 2) emissions; and
- free allowances under the ETS will be phased out for the relevant sectors between 2026 and 2035.

Hydrogen Economy: Roadmap of European Regulatory Developments

04

Future Developments

The EC is yet to determine the methodologies for calculating direct and indirect emissions. It remains to be seen how emissions associated with the production of hydrogen used in the supply chain of CBAM products (e.g., ammonia or green steel) will be assessed under the CBAM.

Given that EU producers of such products will be required to use 50 percent of RED II-compliant hydrogen in their production, will the CBAM extend the same requirement to non-European producers? Failing to do so would put European producers at a disadvantage compared to non-European producers exporting to Europe and so may be politically unpalatable.

OTHER FIT FOR 55 INITIATIVES

Fit for 55 includes other initiatives which may stimulate wider adoption of hydrogen: e.g., the FuelEU Maritime and ReFuelEU Aviation proposals aim to decarbonize the fuel mix for shipping and aviation respectively.

The EC proposes that European Member States should install hydrogen refuelling stations at intervals of max. 150km (under the Alternative Fuels Infrastructure Regulation (“**AFIR**”) and offer preferential tax treatment for the use of clean hydrogen (in the revisions to the Energy Taxation Directive).

HYDROGEN AND DECARBONISED GAS MARKET PACKAGE (Q4 2021)

The EC is preparing revisions to the Gas Directive and the Gas Regulation, following a public consultation earlier in 2021. The aim of these revisions is to ensure that European gas regulation is suitable for the transition to renewable and low-carbon gases and to prepare the gas system for a phase-out of unabated fossil gases. The revisions will also contemplate more integrated infrastructure planning as well as making provisions for hydrogen imports.

CONCLUSIONS

As part of our work on the world’s largest green and blue hydrogen / ammonia projects, we are experienced in guiding clients through the complex and evolving regulatory landscape applicable to hydrogen and energy transition in Europe. With this deep understanding, we can help you structure your projects to optimize the opportunities presented by this interconnected regulatory matrix, allowing you to benefit from the up-side available to appropriately structured projects within the European regulatory regime.



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05





INSIGHTS

There have been a large number of energy sector disputes within the EU recently. For example, on September 16, 2021, the fiftieth investment treaty claim was filed with the International Centre for Settlement of Investment Disputes regarding Spain's renewable energy reforms.

Continued overleaf

Increasing Assertiveness of EU Courts in the Energy Sector

BY ALEX BEVAN, GARRETH WONG, ALASTAIR LIVESEY AND YVONNE ADDAI

Increasing Assertiveness of EU Courts in the Energy Sector

05

In recent years, there has also been an observable trend of courts within the EU – both at the EU and individual Member State levels – becoming increasingly assertive in adjudicating energy-related matters. These decisions track alongside the EU’s expanding legislative impetus, seen in new areas such as the hydrogen regulations discussed above.

Several recent decisions have consequences on a global scale, well beyond the EU’s borders. Two are particularly noteworthy:

1. MILIEUDEFENSIE AND OTHERS V ROYAL DUTCH SHELL PLC

On May 26, 2021, the Hague District Court issued a landmark decision in favour of a collective of Dutch NGOs which ordered Shell to reduce by the end of 2030 its global, group-wide CO₂ emissions by 45 percent, relative to 2019 levels.

The judgment was significant in several respects, covered in our [contemporaneous briefing](#). In particular:

- Shell was found to owe a duty of care to Dutch residents in respect of its CO₂ emissions, no matter where those emissions occurred. The Court’s decision was not limited to Shell’s conduct in the Netherlands, nor even the EU.

- In fact, Shell’s compliance with the applicable laws and regulations in the Netherlands did not affect this duty of care, which the Court found to exist independently of any individual States’ actions to prevent climate change.
- Shell not only owed an “*obligation of result*” to reduce the group’s own emissions, but also a “*significant best efforts obligation*” to reduce CO₂ emissions of its suppliers and end-users.

By ordering Shell to reduce its emissions, the Dutch Court took the lead on tackling climate change through rights-based reasoning. It also took into account emissions, and required Shell to take action, well beyond the Netherlands’ borders.

Furthermore, whilst the judgment was rendered under Dutch law, the Court drew heavily from international treaties and guidelines, notably including the European Convention on Human Rights. This sort of reasoning could easily be replicated by other national courts, particularly those within the EU, which has acceded to the Convention. EU courts will likely provide fertile ground for similar claims in the future.

Shell is currently appealing the Court’s judgment, which is expected to take two to three years. In the meantime, Shell has indicated that it intends to comply with the judgment. In public statements, Shell offered the view that urgent action

is needed to reduce carbon emissions, confirming that it would rise to the Court’s challenge, but that one Court’s decision against a single company is not an effective way to meet that goal.

2. REPUBLIC OF MOLDOVA V KOMSTROY LLC

The Energy Charter Treaty (“ECT”) is a multilateral investment agreement containing a framework of protections for energy sector investors within and outside the EU. The ECT currently has 57 signatories and contracting parties, made up mainly of EU Member States. It was also signed by the EU and Euratom in December 1994.

The ECT is important because it affords foreign investors international law protections over their investments in other contracting States. It also provides a mechanism for the independent and binding adjudication of disputes through arbitration. Over recent years, some of the most significant investment claims have been brought under the ECT, including the \$50 billion Yukos award secured by Shearman & Sterling for the majority shareholders in Yukos Oil Company against Russia.

However, on September 2, 2021, the Court of Justice of the European Union (“CJEU”)’s judgment in *Komstroy* held that Article 26(2)(c) of the ECT – the provision through which investors can bring claims – is incompatible with EU

law insofar as it provides for arbitration between a Member State and an investor of another Member State. As discussed in [our briefing](#) on the decision, EU-based investors will now face greater legal hurdles when bringing ECT claims against Member States.

On one level the decision in *Komstroy* was surprising, as neither *Komstroy* – a Ukrainian company – nor Moldova were EU parties. The CJEU nevertheless rendered a judgment on the basis that EU law was indirectly impacted. Once again, the EU courts’ assertiveness in looking beyond their borders was clear.

Yet, on the substance, the decision in *Komstroy* represented only a further step in the EU’s goal to self-regulate energy investments. In its 2018 *Slovak Republic v. Achmea* judgment, the CJEU had already ruled that similar investment protections found in intra-EU bilateral investment treaties were incompatible with EU law. Then, following *Antin v. Kingdom of Spain*, the European Commission launched an investigation into whether the ECT award rendered against Spain would breach the EU’s State Aid rules. The EU’s current proposal for a permanent multilateral investment court made up of pre-selected adjudicators will likely continue the EU courts’ expanding influence in the energy sector.



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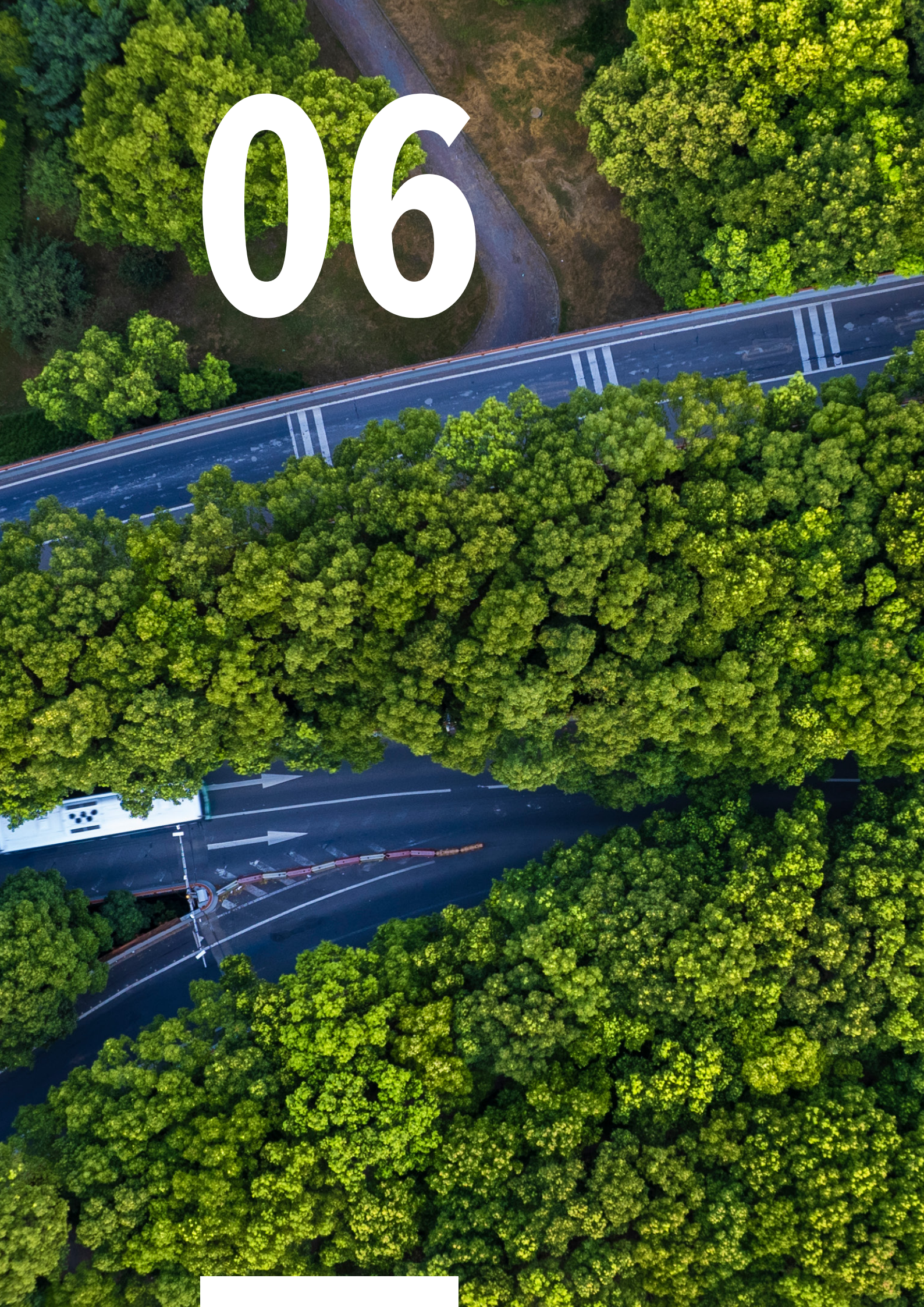
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06





INSIGHTS

In recent times, carbon-intensive sectors in many parts of the world¹ have been subject to mandatory programs that: obligate reporting of greenhouse gas (“**GHG**”) emissions; set thresholds for permitted emissions; and enforce compliance using instruments such as carbon taxes or cap-and-trade. Governments have also signed on to binding international treaties² which commit them to reducing their GHG emissions and ultimately achieving carbon neutrality by 2050.

Continued overleaf

The Rise of Carbon Offsetting

BY IAIN ELDER AND COLM Ó HUIGINN

The Rise of Carbon Offsetting

06

In addition to these compulsory regimes, there is a growing trend of other sectors voluntarily taking accountability for their emissions and demonstrating climate leadership. These sectors are increasingly using carbon offset credits (as well as effecting emissions reductions) as a means of lowering their carbon footprint and achieving emissions reduction targets. To provide a starker illustration of the power of offsetting, even traditional high-GHG emitters such as liquefied natural gas and crude oil suppliers are marketing “carbon neutral” cargos, offsetting credits against the emissions generated from extraction and production.

The justification for carbon offset credits stems from the premise that: (a) the technology to allow these sectors to become zero carbon emitters does not currently exist (or exist at a commercially reasonable price); and (b) reporting entities will have limited control over their Scope 3 emissions³.

A carbon offset credit is issued for sale by a project for each metric tonne of carbon-dioxide equivalent (“**MTCO₂e**”) which it permanently removes from the earth’s atmosphere. Carbon offset credits need to be recognized by administrative registries for mandatory regimes or independent certification bodies to be redeemed against emissions.

However, the use of carbon credits is not without controversy. Critics argue that their environmental benefit often falls short of the intended impact and that they have become modern day indulgences, bought by deep-pocketed emitters to “greenwash” over a failure to reduce emissions.

A broad menu of carbon offset projects exist for credit purchasers to avail themselves of, including:

- renewable energy projects (and, in the coming years, green hydrogen projects);
- Direct Air Capture (“**DAC**”) and Carbon Capture Use and Sequestration (“**CCUS**”)⁴ projects; and
- afforestation, avoided deforestation and other land management projects such as planting seagrass beds, mangrove trees, indigenous vegetation and natural regeneration.

The threshold hurdles in petitioning a registry or certification body to accept a carbon offset credit are:

- **permanence of the removal of the GHG** – the project must be able to demonstrate that the GHG will remain sequestered for a sufficiently long period of time to be considered permanent⁵.
- **additionality of the offset project** – the project must be able to establish that it would not exist but for the purchase of the offset credits it generates. As the price of renewable energy has fallen in recent years to allow it (in certain markets) to become cost competitive with conventional power plants, some certifying bodies have refused to issue carbon offsets certificates for renewable energy projects.
- **territorial limitations** – the siting of an offset project may be dictated by the existence of suitable natural properties (e.g., the presence of a permeable reservoir in a geological formation

1. Including the United Kingdom, the European Union, Australia, South Korea and California.
2. For example, the Kyoto Protocol and the Paris Agreement made pursuant to the 1992 United Nations Framework Convention on Climate Change (UNFCCC).
3. Scope 3 monitors upstream emissions in the supply chain in generating a product (e.g., raw materials used) and downstream emissions from the on-sale or supply of a product (e.g., transportation costs).
4. CCUS is only recognized as a carbon offset project if the emissions producer does not claim a corresponding reduction in its Scope 1 emissions.
5. In jurisdictions like Australia and California, a permanence threshold of 100 years applies (with exceptions).
6. For example, in Korea the only international projects recognized are ones where a Korean developer has an equity interest or which provide a social benefit in a lesser developed country which Korea has funded (such as providing cooking stoves in Africa).
7. More advanced mandatory carbon markets will require offset project developers to contribute to buffer pools to safeguard against the reversibility risk.

for a DAC or CCUS project). However, some registries will only recognize a domestic offset project which curtails the pool of eligible projects for purchasers⁶.

There is also considerable divergence in the cost of carbon offset credits. Afforestation offers credits at the more inexpensive end of the scale at approximately \$4 per MTCO_{2e}. In contrast, a recent DAC project in Iceland is issuing carbon offset credits at over \$1,000 per MTCO_{2e}. However, whilst DAC and CCUS projects currently offer more expensive credits, they have the draw of: (i) assured additionality, as the projects would clearly not be built but for the revenue from the carbon offset credits, and (ii) stronger permanence potential than nature-based projects, due to the reduced risk of leakage from a reservoir more than one kilometre beneath the earth's surface⁷.

Issues around double counting of offsets and miscalculation of projected offsetting volumes have undermined investor confidence in offset projects, as have recent wildfires in the United States which destroyed forests used for a carbon offsetting project.

The disparity in the standards applied by certification bodies and skepticism about the environmental attributes of certain projects has prompted calls for tighter regulation of the voluntary carbon credit markets and greater harmonization between the environmental standards applied by registries and certification bodies. Markets require certainty, predictability and integrity.

A private sector taskforce has recently been established by the Institute of International Finance called the Taskforce

on Scaling Voluntary Carbon Markets ("TSVCM"). This was spearheaded by the former governor of the Bank of England, Mark Carney, with the objective of attaining strong integrity for voluntary carbon markets to help meet the goals of the Paris Agreement.

In the first phase of its review, published in January 2021, TSVCM concluded that:

"offsetting can play an important complementary role [to emissions reduction] to accelerate climate action; and a liquid voluntary carbon credit market at scale could allow billions of dollars of capital to flow from those making net-zero commitments (but without the facility to effectuate these) into the hands of those with the ability to reduce and remove carbon, significantly contributing to the transition to net zero."

TSVCM's next objective is to establish an independent governance body tasked with ensuring carbon credit quality (through a common set of "Core Carbon Principles") and standardization.



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07





INSIGHTS

The Philippines has introduced several restrictive foreign direct investment regulations over many years, but local lawmakers and the business community are pushing for changes to a decades-old law that could contribute to a post-pandemic economic recovery.

Continued overleaf

Proposed Easing of Foreign Investment Restrictions in the Philippines

BY DAVID CLINCH, MINERVA A. SANTOS AND ANGELO FRANCESCO F. HERBOSA

Proposed Easing of Foreign Investment Restrictions in the Philippines

07

Under the 1987 Philippine Constitution, no franchise for the operation of a public utility shall be granted except to citizens of the Philippines or to corporations or associations organized under Philippine law that are at least 60 percent owned by Filipino citizens. What constitutes a public utility, however, is not defined in the Constitution. Instead, it has been indirectly defined by the legislature in the Commonwealth Act No. 146, also known as the Public Service Act (“PSA”), and by the judiciary in case law. The concepts of public service and public utility are used interchangeably when interpreting the provision in the Constitution, and the term “public services” is defined in the PSA. The Supreme Court, in a landmark case in 2003, held that “the term ‘public utility’ implies public use and service to the public.”

As a result of the interpretation of the two terms, foreign investment in a Philippine corporation has been limited to 40 percent in several key infrastructure sectors. In a bid to attract foreign investment, several bills have been filed before the Philippine Congress, which seek to amend the PSA. The latest version of these bills are House Bill No. 78, which was passed by the lower House of Representatives on March 10, 2020, and is being deliberated upon by the Philippine Senate, and Senate Bill No. 2094, which was filed on March 11, 2021.

The bills seek to limit the definition of “public utility” to persons who are engaged in electricity distribution and transmission and water pipeline distribution or sewerage pipeline systems. The objective of the amendments is to seek to open other sectors to foreign investment up to

100 percent. If the bills are passed into law, only those persons that fall within the definition of a “public utility” will be subject to the foreign ownership restrictions on public utilities under the Constitution. Both bills stipulate that no other person will be considered a public utility unless otherwise subsequently provided by law.

While promising, the longer-term impact of these changes remains to be seen. SB No. 2094 appears to balance the liberalization of the ownership of certain industries with the protection of critical businesses from foreign ownership by introducing various protective mechanisms. Subject to certain exceptions, these include:

1. a limit on the number of foreign nationals employed by a public service to 25 percent of total employees;
2. establishing that no competent, able and willing Philippine national is available for employment by the public service entities;
3. a prohibition on foreign state-owned enterprises from owning capital in any public service classified as “critical infrastructure”;
4. a 40 percent foreign ownership limitation on public services engaged in the operation and management of critical infrastructure unless the country of the foreign investor grants the same privilege to Filipinos; and
5. a national security review of foreign government-controlled transactions which would result in control of critical infrastructure.

Despite this, it is thought that the attempted use of legislation to affect a change in the interpretation of the constitution is likely to result in a constitutional challenge if the amendments are passed into law.

Foreign investment up to 100 percent is currently permitted where the corporation is engaged in the generation and supply of electricity; however, transmission and distribution are currently restricted and it is thought will remain so under the proposals. One other major issue being debated at the Philippine Senate is the proposal to retain telecommunications under the definition of a public utility. While some senate members have raised security concerns with the proposal to liberalize the sector, business groups are backing the proposed changes for the sake of telecommunications upgrades that they see as critical for maximizing the development potential of other industries.

Although SB No. 2094 was certified as urgent by President Rodrigo R. Duterte, discussions in the Senate seem to have hit an impasse. The passage of the proposed amendments to the PSA into law should be a welcome development for foreign investors. However, to attract the levels of foreign investment needed for critical infrastructure, it seems likely that foreign investors will also look beyond the liberalization of these sectors to supporting policies, continued reform in governance and other matters that foreign investors regard as important when making major infrastructure investments. For now, it remains a wait and see situation.



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08





INSIGHTS

On July 14, 2021, the European Commission published its proposal for a Carbon Border Adjustment Mechanism (“**CBAM**”).¹ To allow businesses to adjust, the CBAM will be phased in from 2023 and only become fully operational in 2026. While the exact mechanics of the regime remain to be seen, the July 14 proposal offers some insight into the expected avenues for appealing CBAM-related decisions. These provisions are likely to interest importers navigating their potential CBAM exposure.

Continued overleaf

Dispute Resolution under the CBAM

BY ALEX BEVAN, JENNIFER YOUNAN, ELISE EDSON AND CHLOÉ VIALARD

Dispute Resolution under the CBAM

08

BACKGROUND

The CBAM will require importers of certain products into the European Union to purchase, on an annual basis, **CBAM certificates** sufficient to cover the cost of the emissions embedded in those products for the previous calendar year. The price of these certificates will be fixed centrally and will, in theory, correlate to that which would have been paid had the goods been produced under EU carbon-pricing rules. If an importer has paid a corresponding price in a third country, that cost can be deducted.

In this way, the CBAM is designed to reduce “**carbon leakage**” — i.e., EU producers shifting abroad to take advantage of less rigorous environmental standards, or EU products losing market share to more carbon-intensive imports—and to encourage non-EU producers to decarbonize.

The CBAM’s initial scope of application will be limited to the **iron and steel, aluminum, cement and fertilizer** industries, as well as **electricity**, with other sectors to follow.

Third countries that participate in the EU Emissions Trading System (“**EU ETS**”) or that have an emissions trading system linked to the EU ETS will be excluded from the CBAM—including members of the European Economic Area and Switzerland. Imports from all other non-EU countries will be subject to the CBAM.

IMPLEMENTING AND ENFORCING THE CBAM

On June 3, 2021, an informal draft of the European Commission’s CBAM proposal became public. According to that draft, a centralized **CBAM Authority** would be created with responsibility for implementing and enforcing the CBAM.

In the July 14 proposal, references to the CBAM Authority have been replaced with “**the competent authority of each Member State.**” Each Member State will be required to designate a national authority with responsibility for administering the CBAM within the country’s borders (Article 11).

Member States may additionally impose **administrative or criminal sanctions** for failure to comply with the CBAM “in accordance with their national rules”; such sanctions are required to be “effective, proportionate and dissuasive” (Article 26(5)).

APPEALING FROM CBAM-RELATED DECISIONS

The June 3 draft proposal additionally envisaged the creation of a central **Board of Appeal** to hear appeals from decisions of the CBAM Authority, with decisions of the Board of Appeal appealable before the European Court of Justice.

The July 14 proposal makes no mention of the Board of Appeal. Instead, it stipulates that there shall be a right of appeal under national law against official decisions taken by Member States’ authorities in connection with:

- **A refusal of an application for CBAM registration** (Article 17(3));²
- **A demand to surrender additional CBAM certificates** (Article 19(4));³
- **The imposition of penalties for:**
 - **failing to surrender the required number of CBAM certificates** (Article 26(1) & Article 26(4)(f));
 - **introducing goods into the European Union without surrendering CBAM certificates** (Article 26(2) & Article 26(4)(f)); and
 - **non-compliance with reporting obligations**, including, during the initial transitional period, the duty to submit a quarterly “CBAM report” to the competent authority of the Member State of importation (or, if goods have been imported into more than one Member State, to the competent authority of the Member State of the declarant’s choice) (Article 35(5)(f)).

The form that such an appeal might take—including the body before which an appeal may be brought (the courts, an existing administrative tribunal or a tribunal created to hear CBAM-related appeals), the timeframe for such an appeal and the rules of procedure—will therefore be a matter for each Member State.

1. Proposal for a Regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism, July 14, 2021, available at https://ec.europa.eu/info/sites/default/files/carbon_border_adjustment_mechanism_0.pdf.
2. CBAM registration is subject to several requirements, including the absence of any serious or repeated infringements of customs, tax and market abuse rules during the preceding five years (July 14 proposal, Article 5(3)).
3. An importer's annual CBAM declaration shall be subject to review by the competent national authority (July 14 proposal, Articles 19(1)–(3)).
4. Impact Assessment Report accompanying the document Proposal for a regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism, SWD(2021) 643 final, p. 28.

CONCLUDING REMARKS

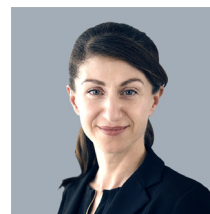
Unlike the June 3 draft envisaging a centralized system at the EU level, the July 14 proposal delegates implementation and enforcement of the CBAM to the national authorities of Member States—including on matters such as CBAM registration and the review of importers' annual CBAM declarations.

As an Impact Assessment Report accompanying the July 14 proposal notes, this decentralized approach to implementation and enforcement of the CBAM “may entail a long lead time to a fully harmonized implementation of the rules.”⁴ We will continue to monitor developments in this area.



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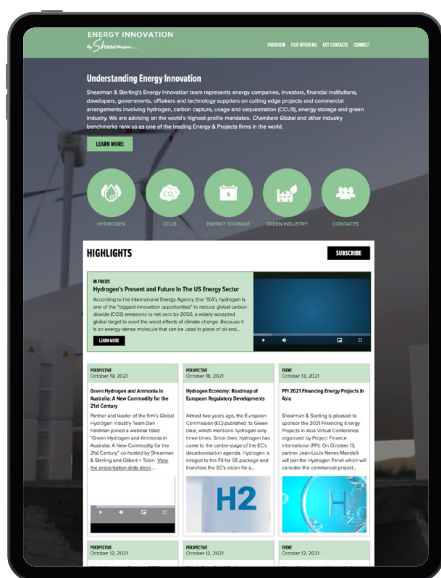
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ENERGY INNOVATION

by *Shearman*

Shearman & Sterling Launches the Energy Innovation Hub

On October 7, 2021, Shearman & Sterling launched its Energy Innovation Hub, a digital resource for energy innovation developments, articles, events and news that highlights the Firm's deep technical expertise and experience in the key technologies that are transforming the energy, industrial and transport landscapes.

The hub highlights the following technologies: Hydrogen; Carbon Capture, Usage and Sequestration (“**CCUS**”); Energy Storage; and Green Industry (green steel, aluminum, ammonia, cement and mining).

As part of the launch, the team also published a thought leadership piece, “[Hydrogen's Present and Future in the U.S. Energy Sector](#)” to coincide with World Hydrogen Day, celebrated annually on October 8.

[Access the Energy Innovation Hub.](#)

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