Kluwer Arbitration Blog

The Next Generation of Energy Transition Disputes: What Might Be the Future for Carbon Capture, Use, and Storage and Arbitration?

Emma Iannini · Monday, July 1st, 2024

If an international arbitration practitioner hears “renewable energy,” “renewable energy source,” (“RES”) or even “energy transition” disputes, chances are that he or she may think of the Energy Charter Treaty (“ECT”) and the torrent of claims filed by investors against European Union (“EU”) Member States. These claims challenge retroactive regulatory changes to feed-in tariff and green credit incentive schemes for solar and wind energy in the 2000s and 2010s. With this cycle of investment treaty claims now coming to an end and a multi-jurisdictional “enforcement” contest beginning between award-creditors and states, energy transition disputes and arbitration have arguably entered a new phase in their relationship. The surge of state-based incentive schemes and subsidies for carbon capture, use, and storage (“CCUS”) technologies over the last decade could usher a “second generation” of energy transition disputes for arbitration practitioners.

Background on CCUS Technologies

By way of background, CCUS refers to a set of technologies that seek to prevent carbon dioxide (“CO2”) generated by large stationary sources (e.g., coal or liquified natural gas-fired power plants) from entering the atmosphere by capturing the CO2 at the source. The CO2 is then transported through underground pipelines to a storage location and is injected at a site deep into the ground for permanent storage. A closely related technology called Direct Air Capture (“DAC”) seeks, more broadly, to pull already-emitted CO2 out of the air but is not linked to a particular stationary source of emissions.

Government Incentives and Investments in CCUS

After a disappointing couple of decades for CCUS, the industry turned a corner in 2020, with governments and private industry worldwide investing at least US$ 25 billion into CCUS programs. Under the 2022 Inflation Reduction Act (“IRA”), the United States has arguably become the leading jurisdiction offering generous incentives and subsidies to CCUS investors. Investors in the United States can access credits of US$ 85 per ton of CO2 permanently stored from stationary pollution sources and credits ranging from US$ 50 to US$ 180 per ton of CO2 removed via DAC. Investors can also “stack” these federal incentives with benefits from other state programs, such as the California Low Carbon Fuel Standard, where credits averaged US$ 200 per ton of CO2 in 2020. In the first twelve months since the passage of the IRA, the capacity of all CCUS facilities under development grew globally to over 420 million tons, an increase of more than 40%.

The flush of new public cash for CCUS is not limited to the United States. In Norway, for instance, the government has committed US$ 1.8 billion to the Longship project, which includes the Northern Lights offshore CO2 storage hub. This facility, scheduled to begin operations in 2024, will have sufficient storage capacity to offset the equivalent of 750,000 car emissions per year. Norway's neighbor across the North Sea, the Netherlands, has also committed up to EUR 2 billion to the Porthos CCUS hub at the Port of Rotterdam, which will serve as an open-access utility for industries lacking other viable decarbonization alternatives. Companies such as Air Liquide, Air Products, ExxonMobil and Shell have already partnered with the Dutch government to capture 2.5 million tons of CO2 per year for storage at the Porthos facility, which is expected to begin operations in 2026.

Meanwhile, the UK has established a billion-pound CCUS Infrastructure Fund with the target of building four CCUS hubs in the country by 2030. Canada's government, furthermore, has announced an US$ 8 billion initiative to store 15 million tons of CO2 by 2030 through CCUS. Likewise, the Australian government has committed AUD 250 million in funding for CCUS hubs, offering investors credits of approximately AUD 20 per ton of CO2 captured.

Potential for Disputes in CCUS Projects

All investments in CCUS projects involve contracts and potential disputes that could be subject to both commercial and investment arbitration. With significant public and private capital being funneled into CCUS and other energy transition-related technologies, it is perhaps unsurprising that arbitration institutions such as the ICC have already noted a surge in activity related to climate change. The 2019 ICC Commission Report on Resolving Climate Change Related Disputes through Arbitration and ADR underscored that in 2018, 70% of all new ICC arbitration cases arose from sectors anticipated to be impacted by climate change. The construction, engineering and energy sectors alone accounted for over 40% of these cases. The ICC Commission further expects "climate change related disputes [to] increase exponentially", including those related to CCUS. Recent data on the total amounts or percentages of disputes related to CCUS and other energy transition-related technologies at SIAC, LCIA, and AAA/ICDR are less clear. However, it is likely that energy transition-related construction and engineering disputes are generally on the rise as investors aim to capitalize on subsidies and commence construction of new CCUS projects.

But construction and engineering arbitrations and/or litigations related to CCUS are just the tip of the iceberg. International CCUS projects could prompt a variety of public and private law disputes, including those regarding (a) the application of investment, environmental and other treaties regarding access to and use of storage sites and attribution of liability for leakage from CO2 transit pipelines and networks; (b) CCUS systems causing transboundary pollution or other damage; (c) non-performance of a party or breach of an investment treaty or contract; (d) construction difficulties arising from delays, regulatory changes, *force majeure*, or other issues; and (e) cancellation or changes made to government incentive programs or subsidies. Given the scale and complexity of CCUS investments and the technology's nascent nature, these scenarios represent only a fraction of possible disputes that might arise.

Lessons from Renewable Energy Source Disputes

Against the background of the past decade and a half of RES-related ECT claims in Europe and elsewhere, prudent investors in CCUS projects might wonder if it is possible that a rapid drop in the cost of production of CCUS technologies might "overheat" the market and cause governments

to reduce current CCUS subsidies and credits. For various reasons, analogies to the solar and wind energy "boom" that led Spain, Italy and other countries to retrospectively adjust their feed-in tariff or green credit schemes may not be appropriate.

First, in response to the ECT claims resulting in over a billion euros in liability for Spain and hundreds of millions of euros in liabilities for Italy and other EU Member States, EU institutions have taken steps to dismantle the network of bilateral and multi-lateral investment treaties that once offered *intra*-EU investors the choice of international arbitration.

Second, the EU, along with other countries and NGOs have launched global campaigns against including investor-state dispute settlement clauses in new generation investment treaties. Arguably, these efforts have chilled the appetite of foreign investors and litigation funders for treaty claims, especially since EU Member States have refused voluntary satisfaction of *intra*-EU ECT awards. Investors are now being compelled to spend tens of millions in legal fees in the United States, the UK, Australia, and other jurisdictions attempting to enforce their *intra*-EU awards against state debtors.

Third, although CCUS costs are starting to decrease, the technology's high design complexity and need for customization to each stationary pollution source and geography might keep prices in the high-end range for a significant period of time. Some industry experts have observed that, compared with the rapid cost reductions in the development of solar and wind technologies in the 2000s and 2010s, CCUS costs have been and will likely continue to be slower to decline.

Fourth, rising geo-political tensions between China, the United States, and the West in general, coupled with the Western political parties' enthusiasm for "de-risking" their economies from China, mean that Western countries will be less likely to source hardware for CCUS projects from China. This is in contrast to the solar "boom", where parts where readily sourced from China due to their availability and relative affordability. If tensions continue to rise between China on the one hand, and the United States and the EU on the other, Western policymakers may make CCUS subsidies contingent upon sourcing physical hardware and financial capital either domestically or from "friendly" countries. Regardless, it appears that the leaders in engineering, procurement and construction solutions for CCUS projects are currently based in Western countries, not China. As such, it seems unlikely that China will be able dominate manufacturing of CCUS hardware as it has in the solar industry.

Conclusion

In sum, though the "first" generation of RES and energy transition investment and commercial arbitrations may prove very different from the "second" generation arising from CCUS and other new technologies, it seems clear that arbitration institutions and practitioners will have a field of disputes ripe for picking in the future. The bounty yielding from CCUS might be plentiful not only for supporters of the energy transition and decarbonization, but also for investors and dispute resolution specialists.

To make sure you do not miss out on regular updates from the Kluwer Arbitration Blog, please subscribe here. To submit a proposal for a blog post, please consult our Editorial Guidelines.

This entry was posted on Monday, July 1st, 2024 at 8:36 am and is filed under Energy, International agreement, Investment Arbitration
You can follow any responses to this entry through the Comments (RSS) feed. You can leave a response, or trackback from your own site.