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The Arbitration Review of the Americas

2024

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Trends in renewable energy disputes in the Americas

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Summary

IN SUMMARY

Investment in the renewable energy sector in the Latin America and the Caribbean regions continues to be robust, driven primarily by capacity additions in Brazil and a few other countries. While past arbitral disputes in the renewable energy sector have primarily focused on changes in subsidy regimes, the rapid growth in renewables investment in the Americas and elsewhere may signal a new era of disputes, reflecting not energy market rules but also the full range of project-related disputes seen in other capital-intensive infrastructure sectors.

DISCUSSION POINTS

- Introduction to renewable energy in the Americas
- Origins of disputes in the renewable sector
- Drivers of recent potential renewable energy disputes

REFERENCED IN THIS ARTICLE

- International Renewable Energy Agency
- International Energy Agency
- Paris Accord

INTRODUCTION

Various regions of the Americas continued to see substantial additions to renewable energy capacity in 2022. According to the International Renewable Energy Agency (IRENA), 2022 saw the addition of approximately 18 gigawatts (GW) of new renewables capacity in South America.[1] Brazil dominated renewable capacity additions in South America. Central America and the Caribbean saw a much smaller increase of capacity, of approximately 400 megawatts (MW), spread over many countries.[2] Mexico, whose recent developments are discussed in more detail below, had approximately 1 GW of new renewable capacity in 2022.[3] This was a lower capacity increase than in previous years. Solar photovoltaic (PV) technology was dominant across the region's capacity additions, especially in Brazil, Chile and Mexico, although Brazil also added about 3GW of onshore wind in 2022.[4]

Capital Investment In Renewable Energy

The scale of renewable energy investment worldwide continues to grow. In 2022, capital investment in the renewable energy sector globally reached US$499 billion; more than half of this was in the solar sector.[5] For a point of comparison, total fossil fuel investment, not just in power plants but in coal mining, and oil and gas upstream and midstream, was approximately US$963 billion.[6] While not as large, the global renewable energy sector is now on the same order of magnitude as the conventional oil and gas industry, which has received so much attention from arbitration practitioners in the past.

While Latin America and the Caribbean continued to see significant capital investment in renewables in 2021 and 2022, overall the percentage of investment of the region as a fraction of global investment fell, outweighed by very large capital investment in East Asia, particularly

in China. Capital investment per person in Latin America and the Caribbean fell to US$31 per person in 2021, much lower than in high growth regions such as the United States, East Asia and Europe.[7]

Future Investment Needs

Future investment needs are much larger to meet regional climate target commitments. IRENA has estimated that the Latin America and Caribbean region needs US$118 billion per year in investment in renewable energy, transmission lines, energy efficiency and electrification to meet Paris Accord targets.[8]

Globally, the scale of potentially needed investment is extremely large. IRENA estimated that until 2030 capital investment in renewable energy needs to be three times larger than in 2022 to meet climate targets – US$1.6 trillion dollars per year.[9] The International Energy Agency (IEA) has estimated that hitting net zero investments will require investment of more than US$2 trillion per year.[10] A 2021 IEA analysis concluded that hitting a 2050 net zero target would require capital investment of approximately US$5 trillion per year.[11]

Even at current levels, the scope for renewables disputes will continue to grow, owing to the sheer scale of capital investments – many of them cross-border – being made. Coming anywhere near global climate targets would require much larger investments and on an accelerated time frame, greatly increasing the scope for commercial and investment arbitrations in the renewable energy sector. The Americas, even if its investment remains below average on a per capita basis, will still see large sums invested for years, so disputes in the region and sector appear almost inevitable.

ORIGINS OF DISPUTES IN THE RENEWABLE SECTOR

Renewable energy projects require large sunk cost investments and hence – like other infrastructure projects – may create disputes in the development, construction and operational phases. Several specific aspects of the renewable energy sector have the potential for creating disputes that are worth examining.

Dependence On Subsidies And Other Policies

Historically, renewable energy generation projects, such as wind and solar, were typically substantially more expensive than conventional sources of electric generation, and hence investment in the sector required a mixture of direct and indirect policy support from governments. As discussed below, the largest historical driver in renewable energy disputes has been changes in subsidies and related programmes.

The most common renewable energy support programme in the Americas has been the 'reverse auction' model for procuring renewables. Under this approach, the government or regulatory agency sets an amount of renewable energy to be purchased (often by type of power, such as solar PV) and developers bid to supply the power under a long-term contract (a power purchase agreement or PPA) with the utility or other (often government) off-taker. The reverse auction model was first developed and implemented in South America and is sometimes referred to as the Latin American model, although it has now been used in more than 50 countries around the world.[12]

The most common renewable support mechanism in Europe, on the other hand, has been the feed-in tariff (FIT). Under this approach, a special FIT price (higher than that for conventional electricity generation) is provided to qualifying projects for a substantial

period, often 10 or more years. The level and stability of these prices was designed to make the qualifying projects financially viable. Changes to the FIT prices, however, may have a substantial impact on investors. Changes to FIT prices and rules and related government policies have created a substantial number of arbitrated disputes in Spain, Romania, Italy and other countries. Spain alone has faced numerous claims concerning its renewable energy policies; some of these are claims are still being adjudicated.[13] The FIT system, which has been involved in many disputes, has not been widely used in Latin America – where the reverse auction approach has dominated.

Financing And Contractual Structures

Most large solar and wind projects are project financed, but balance sheet financing has increased in recent years.[14] In general terms, project finance may be defined as financing using non-recourse loans made to a special purpose vehicle company that owns and often operates the project.[15] As project finance loans are made without recourse to the assets of the project owner and sponsor, repayment depends critically on the economics of the operational project.

Project finance is a widely recognised and accepted financing technique for many types of projects – not just renewable energy projects. However, it does have characteristics that tend to impact project disputes.

First, project finance is based on complex commercial relationships – between the sponsor, off-taker, lenders and other parties – which are reflected in complex contracts. A project financing depends on a web of complex contractual structures designed to work together. The sheer complexity of negotiating such a set of contracts – which may run to thousands of pages for a complex renewable energy project, for example – can lead to disputes.

Second, the structures of project finance tend to amplify the risks to sponsors. The project sponsor typically does not put its own balance sheet at risk in a project financing as the financing is on a non-recourse basis. However, in the case of a problem the lenders will have the right to take over and run the project in the case of a default, backed by strong contractual rights in the financing documents with respect to controls of project cash flows, management, etc. In conjunction with the high leverage often associated with renewable energy projects, the risks to equity sponsors may create an all-or-nothing outcome for project sponsors, increasing the incentive to file a claim if project economics are adversely affected by a counterparty or governments actions.

Siting And Environmental Aspects

Utility scale PV and wind projects require a lot of land, and siting and environmental issues can delay or disrupt project development and construction. It is not uncommon for a PV facility to cover more than a square kilometre with solar panels, and large wind project can require thousands of hectares. Still more land rights are often needed to site the transmission line to interconnect the PV or wind project to the grid. Acquiring the land rights (direct ownership or through leases) and required environmental and other permits necessary to site and build the project can be contentious and trigger disputes with governments as well as other parties.

Changes In Interconnection And Electricity Market Rules

In a previous article, it was discussed how interconnection and market rules changes can impact the development and operation of renewable energy projects.[16] Utility-scale wind

and solar projects require interconnections to the grid, which is typically subject to complex rules and processes. Transmission grid operators are generally owned by governments or state-owned enterprises, or are regulated by government authorities, or both. Changes in interconnection rules and policies may adversely affect projects through delays, increased costs or other means.

After a project has reached its commercial operation date (COD) and has entered service, changes in dispatch and other rules can affect project output and revenues. Once connected, the renewable power project will depend on the grid to transmit the electricity generated to the customer. Changes to rules and policies related to dispatch, curtailment and other operational factors can affect the output economics of an operating project and hence project economics, which may lead to disputes between parties.

DRIVERS OF RECENT POTENTIAL RENEWABLE ENERGY DISPUTES

Changes In Grid And Other Regulation

As previously noted, PV and wind projects are highly dependent on grid interconnections and transmission availability to sell power. Changes – or potential changes – in grid connection and market rules raise the scope that projects may not be able to interconnect promptly or economically. Several solar projects in Mexico stand suspended given the regulatory uncertainty created by regulatory changes implemented by the Mexican government.[17]

Supply Chain Problems And Project Deadlines

Renewable energy project contracts often have specific deadlines defining when new facilities must be financed, constructed and commissioned. Failure to meet these deadlines can trigger disputes with PPA off-takers, and with lenders and other parties such as engineering, procurement and construction (EPC) contractors. Delays may be behind several claims before the Permanent Court of Arbitration against the Argentine electricity market operator.[18] The pandemic and global supply chain issues affecting the solar sector have created issues for Latin American projects.

Changing Prices

Renewable energy investments appear especially attractive when competing sources of electricity are costly. In many countries, these are based on fossil fuel costs, especially gas supply costs. In 2022, liquified natural gas (LNG) prices soared, triggered at least in part by reduced Russian supplies after the war in Ukraine. LNG indices have since declined significantly. Changing input prices may affect the willingness of off-takers such as regional utilities to sign the long-term power purchase agreements critical to most project financing.

CONCLUSIONS

The renewable energy sector is growing and maturing rapidly. Even now, the scale of renewable energy investment is approaching investment in conventional fossil fuels. As the size and number of renewables projects to grow, the scope for disputes will grow. Latin America and the Caribbean is trailing somewhat in proportion to some other regions in renewables development, but we continue to see very large levels of capital investment – especially in the solar PV sector – in several countries, led by Brazil.

As the sector matures, we may see more conventional infrastructure disputes related to renewables: delayed construction, supply chain issues, engineering and procurement contracts problems, and financing disputes. Transmission interconnection, from an

engineering and regulatory standpoint, appears to be a growing issue throughout the region (and in the United States and Europe as well), so arbitration practitioners may need to become sensitive to the complex issues related to transmission grids. With hundreds of billions or trillions of dollars a year of investment at stake, effective international dispute resolution remains a key component of meeting regional and global investment targets.

Endnotes

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