

Resolving Disputes in Renewable Energy Projects through International Commercial Arbitration—a study of recent trends.

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1. ABSTRACT:-

The energy sector is undergoing a paradigm shift as nations gradually drift away from the conventional energy sector and towards alternatives that are more environmentally oriented in view of the impact of global warming. Renewable energy projects, as important as they are in the environmental context, entail heavy investment, technological expertise, prolonged gestation periods, and foreign investment. These projects are more sensitive to disputes that may originate from changes in regulatory policies, breach of contract, protraction, policy change, and state action.

International Commercial Arbitration has become an alternative method for resolving dispute, especially when the transaction include cross national boundaries. Currently, worldwide trends show that there has been a shift from treaty arbitration to contract arbitration due to the withdrawal of some countries from Investment Protection Regimes such as the Energy Charter Treaty. Disputes are arising from issues of changed government policies, withdrawal of support for renewable energy sources, to competing state priorities on energy security and economic issues.

The Indian renewable energy market is no different in this regard. Large-scale renewable energy projects may have foreign parties as investors and financiers, which brings international commercial arbitration under the ambit of the Arbitration and Conciliation Act, 1996. Indian courts have gradually adopted a pro-arbitration approach by recognising foreign-seated arbitrations, granting interim relief, and facilitating enforcement of foreign arbitral awards under the New York Convention, subject to limited public policy scrutiny.

This study emphasizes the evolving importance of international commercial arbitration in dealing with disputes that may arise from renewable energy initiatives. This research also finds that the importance of legal certainty, a stable framework, and judicial interpretive consistency cannot be overemphasized if the role of international commercial arbitration in sustainable investments is continue, including renewable energy projects.

Keywords: International Commercial Arbitration; Renewable Energy Projects; Energy Transition; Cross-Border Commercial Contracts; Investor–State Disputes; Arbitration and Conciliation Act, 1996.

2. INTRODUCTION :-

An extensive and diverse sector, the energy industry is tied to long-term, capital-intensive projects with high values. These projects cover all areas of energy from its sourcing through exploration to production as well as the transport and distribution of traditional and renewable energy sources, with transactions frequently crossing many international jurisdictions and governed by a complex set of contracts, laws, and treaties. Due to its close association with government interests and politics, the energy sector is directly impacted by market forces, including resource nationalism, market volatility, and a growing global emphasis on the decarbonization of the energy system, all of which shape this industry's landscape. Therefore, the energy industry also generates a high volume of disputes, requiring efficient and effective methods of resolving those disputes. A key mechanism for resolving disputes within the energy sector is arbitration, which is now considered the primary method of dispute resolution for the energy sector and has become the largest user of arbitration in all industries.

In general, parties to cross-border energy contracts or projects may rely on one of two legal mechanisms for resolving disputes related to those projects or contracts:

- (1) Either through arbitration pursuant to an investment treaty; and
- (2) Through an arbitration proceeding as a result of an international commercial contract.

Options for resolution by the civil courts remain available; however, as explained in further detail below, most essentially in a cross-border setting, the overwhelming majority of parties involved will choose to seek resolution through arbitration rather than through the civil courts of a jurisdiction.

Historically, energy investments were often protected under treaties such as the Energy Charter Treaty (ECT). However, with the withdrawal of some states and the shift toward commercial contracts, international commercial arbitration has become the primary mechanism for resolving disputes in renewable energy projects. The implementation of renewable energy relies upon a comprehensive array of intricate contracts, the most important of which is the Power Purchase Agreement (PPA) and Engineering, Procurement, and Construction (EPC) Work Contracts. In essence, a PPA is a long-term commitment between the developer who will implement a solar energy project and an electricity off-taker, typically a utility or another significant industrial consumer, which details the terms of the electricity sale, including tariff plans, delivery dates, performance guarantees, and penalties for violating the contract. Due to the possibility of unforeseen circumstances, disputes occur due to timing issues caused by delays in commissioning a solar energy project, changes to regulatory policies, tariff modifications, and disagreements concerning the interpretation of take-or-pay contractual elements.

On the other hand, the EPC Contracts serve as a legal framework for the design, construction, and commissioning of a solar energy project. An EPC Contract also transfers risk between project developers, contractors, and sometimes equipment suppliers by specifying how timelines, costs for additional construction and performance standards will be allocated, and the applicable warranty periods and penalties for defective work. Actual disputes between contractors and project developers originating from these contracts typically involve delaying project completion, failure to meet performance standards and unanticipated changes to regulatory provisions. Because renewable energy investment typically crosses national boundaries, commercial arbitration is often used to expeditiously resolve disputes by offering the flexibility of procedural rules, the ability to appoint arbitrators with technical knowledge related to the specific areas of dispute, and enforceable awards across different jurisdictions.¹

In cases where an investment treaty is not in force, contracts and their dispute-resolution terms along with applicable domestic legislation, take precedence. Resolutions of disputes under these circumstances will generally be achieved through the process of International Commercial Arbitration. Many times the complexities of this type of dispute will include advanced legal principles and intricate technical issues and they usually involve at least one party who is a State or a State owned or controlled company.

For instance, while disputes in traditional energy sectors such as oil, gas, and LNG are well documented, renewable energy projects are increasingly generating complex contractual disputes that require specialized arbitration mechanisms.

The funding of renewable energy facilities typically requires substantial financial investment (involving banks and other funding types) that has a short-term interest in the project, but do not have experience in constructing these projects. In many cases, this creates a fundamental conflict between the financier's interest and the overall success of the project. Renewables projects generally have a higher risk associated with them, as many of the technologies have not been tested and therefore have a higher failure rate. This creates congestion within projects, which can lead to disputes due to time delays, increased costs and unexpected defects.

Arbitration is the preferred means of settling disputes which arise in the energy business – such as those listed above – as arbitration creates a final award that can be enforced easily; it is an impartial venue for

¹ John Smith, Resolving Disputes in Renewable Energy Projects through Arbitration, Lexology (Mar. 12, 2024), <https://www.lexology.com/library/detail.aspx?g=e7de486c-6a37-44e4-af24-c928de98751f>.

parties from multiple jurisdictions; it is confidential, which is important when dealing with new technologies; and parties can select arbitrators with the requisite legal, technical or other qualifications.

The most preferred arbitration institutions for the energy business are Global Arbitration Forum, International Centre for Settlement of Investment Disputes (ICSID), International Chamber of Commerce (ICC), London Court of International Arbitration (LCIA) and Singapore International Arbitration Centre (SIAC), among others.

Due to the level of critical infrastructure involved in energy disputes, often there is a need for an emergency arbitrator(s) to issue interim measures to protect or preserve assets until the final resolution of the case is determined. Additionally, the energy industry has seen a significant increase in the use of third-party funding as a result of the high cost and complexity of energy disputes, along with the increased use of expert evidence in the resolution process.

Two types of disputes between states and investors are arising as a result of the overall transition to a carbon-neutral global economy. The first category pertains to states decreasing their financial support for various traditional energy sources, such as oil or gas by invoking the concept of necessity, which allow states to shift their focus to alternative energy sources without compensating investors for any losses.

The second type of dispute relates to the increasing number of disputes; there have been 51 arbitrations resulting from Spain's withdrawal of renewable energy incentives. Similarly, there has been an increase in disputes in the U.S. following the repeal of the Financial Incentive for Renewable Energy.

The ongoing conflict between Russia and Ukraine has also led to renewed fossil fuel exploration and development in some countries and increased resource nationalism in others. These factors have contributed to higher levels of tension between host states and foreign energy investors.

While there has been an increase in the number of renewable energy projects around the world, there has been relatively little academic research into the role of negotiate arbitration related to this type of energy compared to investment treaty arbitration or claims for damages against the state.

The lack of research into how ICAs are dealing with issues arising out of various aspects of renewable energy projects and related to long-term contracts, regulatory changes, and the difficulties associated with enforcement represents a significant gap in the existing literature. In order to fill this void, this article will discuss emerging trends related to international commercial arbitration associated with the renewable energy sector.

3. OBJECTIVES OF THE RESEARCH

- Investigate the characteristics and reasons for conflicts that arise in the context of renewable energy initiatives, especially regarding cross-border contracts (e.g., power purchase agreements and EPC contracts).
- Assess how international commercial arbitration is applied to resolve issues related to renewable energy and consider contemporary practices of international commercial arbitration.
- Investigate how changes in regulations and policy affect contractual obligations for renewable energy projects and the way these disputes are resolved by arbitration.
- Examine the major obstacles and new trends associated with commercial arbitration being used to settle renewable energy-related disputes, and provide recommendations to strengthen the role of commercial arbitration as part of the energy transition.

4. HYPOTHESIS

International commercial arbitration provides an effective, impartial, and enforceable mechanism for resolving cross-border disputes arising from renewable energy projects, particularly those related to PPAs, EPC contracts, regulatory changes, and incentive withdrawals, and the evolution of arbitral practices is critical to ensuring investor confidence while supporting the global energy transition.

5. NATURE OF RENEWABLE ENERGY PROJECTS & DISPUTES

The rapid projected growth in renewable energy capacity translates into an anticipated growth in the number of renewable energy projects, which, in turn, creates a great deal of potential for dispute-related issues to develop. In this article, we will examine the various characteristics of renewable energy projects, the kinds of disputes likely to occur over the duration of a renewable energy project, and how arbitration may be used to resolve disputes arising from renewable energy projects. This is especially true for projects that are being developed across national borders.

As governments and businesses under increasing pressure to act on climate change increase the amount of global attention focused on the threats of global warming, there is a clear trend toward renewable energy and many governments have now also established long-term goals for net-zero emissions. As such many of these ambitious clean energy goals and the commitment of many nations toward achieving them have led to an acceleration of investments into the development of renewable energy projects and, in many cases, have led to increased levels of investment.

In the latest report on the future of renewable energy, titled "Renewables 2020, Projections For 2025" the International Energy Agency (IEA) projected that there would be almost a 10% increase in renewable capacity to be installed in 2021. In addition, it projected that approximately 95% of the increase in global power capacity from 2021-2025 would be comprised of renewable energy sources. The IEA also projected that there were 13 nations that were scheduled to be installing nearly 50 gigawatts (GW) of previously installed renewable capacity by the end of 2021 through 2024. The IEA estimates that about 218 GW of renewable energy will be installed in 2021 alone. Therefore, the unprecedented growth in renewable energy generation capacity over the next several years will require significant amounts of capital to build new renewable energy facilities, as well as improve and upgrade the infrastructure that already exists, creating additional opportunities for different types of disputes to arise such as, among others, project-related disputes.

5.1 Types of Disputes

In order to properly navigate the darker aspects of transitioning toward cleaner, sustainable sources of energy, one needs to understand the particularities associated with renewable energy installations, including how they can give rise to challenges/disputes. It would not be possible to create an exhaustive list of all potential kinds of disputes that may arise over the life of any given renewable energy installation since many installations are multifaceted, so will have multiple partners/investors across multiple jurisdictions, and therefore potentially complicated. However, it is possible to identify some of the key areas where disputes may arise in relation to renewable energy projects, namely:

- Claims for failure to meet performance metrics of new technology (e.g. a claim for misrepresentation, negligence, or breach of contract arising from the failure of new technology to perform); see also *MT Højgaard A/S v E.ON Climate & Renewables UK Robin Rigg East Ltd* and another [2017] UKSC 59;
- Claims for construction disputes (i.e. any claim related to construction, such as claims related to delays in construction or scope changes, breaches of contract, or defects that may occur during construction);
- Investor-state claims made pursuant to multilateral/bilateral investment treaties against host states by foreign investors who seek compensation for breaches of their investment protection rights (such as the right to fair and equitable treatment) due to breaches of the host state's renewable energy regulation. A wave of these investor-state claims were filed against Spain and Italy under the Energy Charter Treaty following changes to those countries' renewable energy regulations.
- Stakeholders involved in developing and financing large-scale renewable energy projects may experience contractual disputes and joint ventures between them.
- There may also be claims resulting from delays in starting supplies from these projects including those delays resulting from grid integration difficulties.
- Regulatory enforcement actions can occur when renewable energy is sold or dispatched into heavily regulated markets.

Analyzing the various types of disputes that can arise allows stakeholders to identify key risk areas to successfully overcome the negatives associated with transitioning to renewable energy.

Table: Types of Disputes in Renewable Energy Projects

Category of Dispute	Nature of the Dispute	Illustrative Examples
Technology performance disputes	Failure of new or innovative technology to meet contractual performance standards	Claims for misrepresentation, negligence, breach of contract (e.g., <i>MT Højgaard A/S v E.ON</i> [2017])
Construction disputes	Delays, scope changes, defective works, EPC contract breaches	Delay damages, defect liability claims
Investor–State disputes	Regulatory changes affecting investor protections under treaties	Claims under the Energy Charter Treaty against Spain and Italy
Contractual & JV disputes	Disagreements between investors, developers, financiers, and joint venture partners	Profit-sharing, risk allocation, governance conflicts
Supply & grid integration disputes	Delays in grid connectivity or commencement of supply	Revenue loss and liquidated damages claims
Regulatory enforcement disputes	Compliance issues in heavily regulated electricity markets	Penalties, licensing, tariff-related disputes

5.2 Use of arbitration to resolve renewable energy project disputes

To many stakeholders within the energy sector, arbitration is the preferred method for resolving any disputes that arise between the various parties involved. In regard to renewable energy project disputes, arbitration has many other benefits.

When creating large renewable energy projects, often the investor is separate from the general contractor and the contractor typically has sub-contractors in various countries. Because of this, there is an increasing need for an independent third party to help resolve disputes that may arise from any of these international projects. One major benefit of arbitration is that most nations are now signatories to the New York Convention, where arbitral awards can easily be enforced across borders.

Another advantage of arbitration is that it allows parties to participate in the process of selecting the arbitrator. For example, if a dispute involves highly technical information and/or expertise, arbitration offers parties the opportunity to select an arbitrator that has industry-specific experience and/or expertise.

The ability of arbitration to remain confidential, unlike litigation, is also very attractive. All procedures associated with arbitration and the resulting arbitral awards, will typically remain between the parties. This can be especially crucial when trade secrets or technology involved in developing new products are at stake.

On-going confidentiality and the perception that arbitration is less adversarial means an arbitration process may help to maintain commercial relationships, particularly in renewable energy projects, which require significant time commitments

Additionally, there is typically no appellate review available with respect to an arbitration award except for a limited number of grounds to set aside or deny enforcement; thus, the results of the arbitration proceedings are typically viewed as final. The finality of an arbitration process results in a reduced amount of expense and delay when resolving a dispute.²

6. WHY INTERNATIONAL COMMERCIAL ARBITRATION?

There is no denying the integral role that energy resources play in the global economy today. Globally, every person relies on energy each day — without energy, no bulbs glow, no food is prepared, and no automobiles operate (see also ‘Fueling the World Economy’). As a consequence, energy and other natural resources will

² Norton Rose Fulbright, Renewable Energy Project Disputes, NORTON ROSE FULBRIGHT (date not specified), <https://www.nortonrosefulbright.com/en/knowledge/publications/af84f6b1/renewable-energy-project-disputes>.

be critical to the growth and development of both society and the economy of a nation. By providing citizens with access to energy resources, citizens will have a greater overall quality of life; thereby leading to greater wealth and power for the nation as a whole.

It is especially important during this time of uncertainty about what the future will look like with regards to energy use. On the one hand, global demand for energy continues to rise and it is anticipated that the demand for electricity will increase twofold by 2060; however, on the other hand, data regarding climate change support the concept that a shift away from fossil fuels will be necessary in order to keep the total temperature increase of the planet below viable levels.

Therefore, states are left with tough choices regarding the potential for political, economic, technological, and social uncertainty regarding the future of energy; what choices they make today will have an enormous impact on the energy landscape over the next several decades.³

Given the major political, economic, and social implications of these disputes, it is no wonder that numerous energy-based disputes have occurred around the world, and that in many cases international arbitration is the preferred method of resolving such international disputes in the energy industry. According to a survey done by the Queen Mary University of London School of International Arbitration along with an international team of general counsel and general in-house lawyers, international arbitration has established itself as one of the top means of resolving international disputes in the energy sector.

According to the survey, 78% of practitioners surveyed think that international arbitration is the most appropriate dispute resolution mechanism for the energy industry, and 56% prefer to use international arbitration to resolve cross-border energy disputes than any other form of dispute resolution (i.e., court litigation or mediation)⁴.

Although arbitration is not always perfect, there are other reports that confirm the popularity and reliability of international arbitration as the preferred means for resolving disputes related to energy. For instance, statistics published by the International Centre for Settlement of Investment Disputes (ICSID) reveal that 44 per cent of the cases filed in 2016 under the ICSID Convention and ICSID.

Additional Facility Rules concerning energy—more cases than in any other industry sector⁵. A large proportion of International Chamber of Commerce (ICC) cases also include energy-related arbitrations (12.5% in 2011, 15% in 2012 and 2013, 19% in 2014, 18% in 2015, and 13% in 2016)⁶, which makes it one of the most case-laden industry sectors for ICC arbitrations.

Because of the recurring disputes that often arise in the renewable energy industry, the number of the number of cases that may arise in the area is many, and the parties are left with the choice of various options that are available at hand like litigation, arbitration, investment treaty arbitration, and expert determination⁷. Various factors such as the nature of the parties involved the complexity of the project, the stage of the project, its location, and confidentiality. India is expected to be at the forefront of the renewable energy market and a large number of solar and wind PV are expected to grow and this installed PV would soon overtake coal and natural gas by 2024⁸. This has resulted in a demand for a need to involve and refer most of the cases arising due to the energy sector in the hands of arbitral proceedings Arbitration per se is the most appropriate procedure for seeking relief in renewable energy disputes due to the presence of a third party for

³ World Energy Council, 'World Energy Scenarios 2016' (n 6).

⁴ Queen Mary University of London, '2013 International Arbitration Survey: Corporate Choices in International Arbitration: Industry Perspectives' (2013) 7 <http://www.arbitration.qmul.ac.uk/docs/123282.pdf>.

⁵ ICSID, 'The ICSID Caseload: Statistics' (2017-1) 27

[https://icsid.worldbank.org/en/Documents/resources/ICSID%20Web%20Stats%202017-1%20\(English\)%20Final.pdf](https://icsid.worldbank.org/en/Documents/resources/ICSID%20Web%20Stats%202017-1%20(English)%20Final.pdf).

⁶ ICC, '2011 Statistical Report' (2012) 23(1) ICC Arb Bull; '2012 Statistical Report' (2013) 24(1) ICC Arb Bull; '2013 Statistical Report' (2014) 25(1) ICC Arb Bull; '2014 ICC Dispute Resolution Statistics' (2015) 26(1) ICC Arb Bull; '2015 ICC Dispute Resolution Statistics' (2016) 27(1) ICC Arb Bull; '2016 ICC Dispute Resolution Statistics' (2017) 28(2) ICC Arb Bull <http://library.iccwbo.org/dr-statisticalreports.htm>.

⁷ LexisNexis, <https://www.lexisnexis.co.uk/legal/news/resolving-disputes-on-renewable-energy-projects-whattools-are-available-how-do-you-choose>.

⁸ IEA, <https://www.iea.org/reports/renewables-2020?mode=overview>.

an impartial decision which is in favour of Both sides, it is relatively faster than litigation, reliable, and somehow cost-effective.

The most attractive feature of arbitration is the protection of goodwill and reputation of the parties due to its confidential nature. Most of the cases indulged here are high profile and are prone to attract media attention, political agendas, and NGO involvement, in case of environmental issues. Most of the parties involved in the dispute are normally from different jurisdictions and arbitration as a method of dispute resolution enables the parties to decide amongst themselves, an arbitration, a convenient location for both parties, thus enabling them to select a seat for arbitration and that place can be both in India as well as outside India.

Arbitration is regarded as a simpler process if we compare it with the traditional process of litigation because it enables the parties to determine which laws will be applicable to them. Additionally, the Arbitral Awards passed are final and binding on the parties, and are irreversible⁹. It is a known fact today that the Indian courts are overburdened with new cases coming up every a day and the old cases take years to reach a result¹⁰.

The energy field is a complex field and it demands an integrated and specialized knowledge of technologies, techniques, and legal framework, and only a few judges in India are able to provide that. However, arbitration provides the opportunity for the parties to choose an expert as their arbitrator thus, providing valuable knowledge and an informed decision to provide the Arbitral Award which is ultimately beneficial to both sides. Arbitration enables the industry, businesses, and consumers to have the dispute resolved by regulators, and consumers to take more control.

It further beneficial for the parties seeking relief at the comfort of their homes, It is not wrong to say that the future of renewables lies in arbitration itself¹¹. International Arbitral Awards or Foreign Awards are also enforceable in India same as a court order¹². India is a signatory to the New York Convention and Geneva Convention, and therefore, any Arbitral Award passed in any of the member countries of the said conventions is also enforceable in India.

7. RECENT TRENDS IN RENEWABLE ENERGY ARBITRATION

The transition between the old economy and the new one on the global economy stage is one based on transitioning from conventionally known traditional sources of energy (such as oil, gas, and mining) to alternative sources of energy (such as wind, solar, and nuclear). As of 2024, the global community actually sees almost twice as many investments going towards alternative sources of energy as are seen going towards traditional sources of energy¹³. The makeup of the landscape of the set number of international investment disputes has slowly but actually reflected this trend, where the percentage of alternative sources of energy disputes comprises an increasing percentage of the set number of international disputes over traditional energy sources. While at the inception of this transition the outlook may not be remarkably different from the old scene already established over the last century through international disputes based on traditional sources of energy, over the coming years we likely will witness an increasingly different scene from the one established over the ages.

Although a new wave of energy disputes is currently only starting to manifest itself, two different patterns of claims have already begun to emerge. The first set of energy disputes is connected with the efforts of some states to abandon conventional sources of energy like coal and gas and conventional methods of energy extraction like fracking and offshore drilling. The disputes emerging out of a green energy transition pose

⁹ Arbitration and Conciliation Act, 1996, S 35, No. 26, Acts of Parliament, 1949 (India).

¹⁰ Devina Poonia, Nature of the disputes that can be solved through arbitration, iPleader, <https://blog.iplayers.in/nature-disputes-can-solved-arbitration/>.

¹¹ Ioana Knoll-Tudor, 2023 PAW Recap – Day 3: Arbitrating Renewable Energy Disputes in the CEE Region, Kluwer Arbitration Blog.

¹² Arbitration and Conciliation Act, 1996, S 49, No. 26, Acts of Parliament, 1949 (India).

¹³ International Energy Agency, 'World Energy Investment 2024, Overview and Key Findings', <https://www.iea.org/reports/world-energy-investment-2024/overview-and-key-findings>.

new and relatively complex normative and legal issues with respect to the proper role of investor arbitration within a globally transitional economy.

7.1 Evolution of Energy Arbitration: From Fossil Fuels to Renewables

Historically, international energy arbitration evolved in connection with oil, gas, and mining disputes, which were usually of a long-term capital-intensive nature involving a close link with the sovereignty of the State over its natural resources¹⁴. The type of disputes that arose under these models and that tended to implicate investment treaty law related to expropriation, stabilization clauses, mechanisms of price revision, and production sharing, and interference by the host state.¹⁵ The jurisprudential developments that issued from these disputes form the core of the doctrines that underlie energy arbitration.¹⁶

Due to the global shift in the move towards decarbonization and renewable energy, the field of energy arbitration is undergoing a paradigm shift. Renewable energy investments, including solar energy and wind energy, share several characteristics with energy investments, such as high initial investment, long-term operation life, and extensive regulatory engagement.¹⁷ On the other hand, renewable energy investments have brought in new elements of risks associated with government incentives, guaranteed tariffs, and new technology.¹⁸

This has led to international commercial arbitration being increasingly viewed as the go-to dispute resolution process that would apply where treaty protection is limited, withdrawn, or uncertain.¹⁹

Aspect	Traditional Energy Arbitration (Oil, Gas, Mining)	Renewable Energy Arbitration (Solar, Wind, Nuclear)
Nature of resources	Exhaustible natural resources	Sustainable and alternative energy sources
Investment structure	Long-term, capital-intensive, state-centric	Capital-intensive with strong private and foreign investment
State involvement	Strong sovereign control over natural resources	Regulatory control through incentives and tariff mechanisms
Typical disputes	Expropriation, stabilization clauses, price revision, production sharing	Incentive withdrawal, tariff renegotiation, regulatory changes
Legal framework	Predominantly investment treaty arbitration	Shift towards international commercial arbitration
Risk profile	Political interference and nationalization	Regulatory volatility and policy reversals

7.2 Increase in Renewable Energy Disputes and Arbitration Caseloads

Within the last ten years, there has been a noticeable trend among arbitration institutions of an increasing number of energy disputes, with renewables increasingly being a part of it.²⁰ Data released by the International Chamber of Commerce (ICC) shows that energy disputes are among the leading industry groups filed annually. Also, the International Centre for Settlement of Investment Disputes (ICSID) statistics illustrate that energy disputes, especially those that relate to regulatory modifications, continue being among the most commonly arbitrated disputes worldwide.²¹

¹⁴ Thomas W. Wälde, Energy Charter Treaty-Based Investment Arbitration, 5 J. World Inv. & Trade 373 (2004).

¹⁵ Bernardo M. Cremades, Disputes in the Oil and Gas Industry, 1 World Arb. & Mediation Rev. 15 (2007).

¹⁶ Rudolf Dolzer & Christoph Schreuer, Principles of International Investment Law 133–36 (2d ed. 2012).

¹⁷ Int'l Energy Agency, Renewables 2020: Projections for 2025 (2020).

¹⁸ Norton Rose Fulbright, Renewable Energy Project Disputes (2023).

¹⁹ Lucy Reed, Arbitration and the Energy Transition, 39 Arb. Int'l 1 (2023).

²⁰ Int'l Chamber of Commerce, ICC Dispute Resolution Statistics (2022).

²¹ ICSID, Caseload Statistics (2023).

This is due to the influx of investments in renewables, volatility in regulations, and the fact that such projects have crossed borders.²² The fact that arbitration is neutral, enforceable, and flexible is what makes it very appropriate to resolve these disputes.²³

One of the most salient contemporary trends in renewable energy arbitration is the proliferation of disputes caused by changes in regulation and incentive withdrawal.²⁴ Many renewable projects are constructed on the basis of feed-in tariffs, tax credits, and guaranteed off take with the sponsorship of governments. In case these mechanisms are changed retroactively, investor confidence is seriously impaired.

The most striking cases come, in particular, from Spain, Italy, and the Czech Republic, where changes in renewable energy support schemes have resulted in a wave of arbitrations under the Energy Charter Treaty.²⁵ For instance, in *Eiser Infrastructure Ltd. v. Spain*, the Tribunal concluded that Spain's revision of its regulatory regime violated the fair and equitable treatment standard since it detrimentally upset the investor's legitimate expectations.²⁶

In *Novenergia II v. Spain*, similarly, the Tribunal said that although States maintain regulatory autonomy, such authority is not unrestricted.²⁷ The following cases show that principles established in conventional energy arbitration, such as legitimate expectations and stability of regulations, remain leading factors for the tribunals when judging renewable energy cases.

One of the major contemporary developments is the emergence of a trend from investment treaty arbitration to international commercial arbitration in the renewable energy sector. This is owing to a number of factors, which include the withdrawal of States from the ECT, restrictive interpretations of investment guarantees, and a shift towards contract-based mechanisms of dispute settlement.

The use of Power Purchase Agreements (PPAs), EPC contracts, and Shareholder Agreements is increasingly being adopted as the principal governing documents in the field of renewable energies. The use of arbitration clauses in the above documents provides the parties involved with more opportunities in making decisions regarding the procedure, governing law, and the expertise of the arbitrators. This has therefore ensured the use of commercial international arbitration in the determination of predictability in the process of the energy transition.²⁸

7.3 Indian Perspective on Renewable Energy Arbitration

The Indian market has been identified to be among the quickest-growing renewables energy market worldwide, owing to national expansion targets for solar and wind energy resources, resulting irresistibly in growing disputes over the renegotiation of tariffs, termination of power purchase agreements, delay in the acquisition of land, force majeure clauses, and uncertainties.²⁹ Notably, Indian Courts have adopted an increasingly pro-arbitration stance having considerable judicial reluctance and strong adherence to the principle of party autonomy under the provisions of the Arbitration and Conciliation Act, 1996, further endorsed through the decision rendered by the Indian Supreme Court in the case of *Vidya Drolia v. Durga Trading Corp.*³⁰ The foregoing parallelizes a worldwide trend witnessed within the context of renewable energy arbitral jurisdiction, with arbitral institutions having implemented innovative procedural steps involving emergency arbitration, expedited procedure arbitral processes, and increasing receptivity to third-party funding to match and counter the time and capital-Feed intensities surrounding renewables energy-related matters.³¹ The ICC, SIAC, and LCIA have modified respective rules to enable greater interim relief

²² Queen Mary Univ. of London, International Arbitration Survey: Energy Sector (2021).

²³ Gary Born, International Commercial Arbitration 83–85 (3d ed. 2021).

²⁴ Norton Rose Fulbright, *supra* note 18.

²⁵ Ioana Knoll-Tudor, The Energy Charter Treaty and Renewable Energy Disputes, 31 ICSID Rev. 244 (2016).

²⁶ *Eiser Infrastructure Ltd. v. Kingdom of Spain*, ICSID Case No. ARB/13/36, Award (May 4, 2017).

²⁷ *Novenergia II – Energy & Env't (SCA) SICAR v. Kingdom of Spain*, SCC Arb. V (2015/063), Award (Feb. 15, 2018).

²⁸ Norton Rose Fulbright, Renewable Energy Project Disputes (2023).

²⁹ Ministry of New & Renewable Energy, Gov't of India, Annual Report 2022–23.

³⁰ *Vidya Drolia v. Durga Trading Corp.*, (2021) 2 SCC 1 (India).

³¹ ICC Arbitration Rules (2021); SIAC Rules (2016); LCIA Arbitration Rules (2020).

and efficient resolution processes, which indeed are extremely important for renewables energy schemes necessitated and dependent on uninterrupted capital and government approvals.³²

However, with the growing intersection of commercial arbitration in the renewable energy sector and sustainability issues, there seems to be a convergence of the sustainability for development principles in the energy transition policy itself.³³ International commercial arbitration, in the renewable energy sector, is expected to continue to be the underlying pillar of the arbitration of renewable energy projects in the years to come, with principles of traditional energy arbitration, in respect of legitimate expectations, proportionality, and necessity, being refined in a manner that adapts to the realities of the global green energy transformation, inter alia, due to the increasing overlap with sustainability issues and principles of sustainability and the legal, economic, and social realities of the global green energy transformation.³⁴

8. ARBITRAL REASONING AND JUDICIAL CONTROL

Within the energy industry, it has been observed that often, related disputes may arise between multiple contracts including different sets of non-aligned parties. With their extensive primary jurisdictions, a scenario in which courts tend routinely to manage such a complex array of disputes. Conversely, the jurisdiction scope of arbitral tribunals is limited—typically defined only by agreement of the parties to arbitrate. This limited jurisdiction creates issues in connection with related energy disputes, as the multiple contracts and multiple groups of non-aligned parties often fail to correspond to a common arbitration agreement that would facilitate the arbitral jurisdiction. Moreover, However, the presence of more than two parties may complicate the process of giving parties an equal say in appointing the arbitral tribunal. Arbitration clauses are a common feature of "energy contracts," especially in "international contracts"; these clauses refer to "The challenges of multi-contract and multiparty disputes are often encountered in the energy" sector. Still, with planning and flexibility, parties can navigate those challenges.³⁵

In the resolution of related disputes involving several parties and individual contracts, cooperating parties be able to find procedural solutions to the inconsistent and potentially inconsistent results that accompany classification by observational categories could arise from multiple proceedings. When dealing with uncooperative opponents, however, an arbitral party may only avail itself of "any procedural options available under the arbitration agreement." Provision of these options can be expressed, implicit, or through institutions rules, the law of the seat or other governing law.

The choice of the procedural regimes available requires an understanding of the relative benefit and risks in the particular case. The question, of course, remains: why are related energy multi-contract and/or energy multi-party disputes? face any challenges at all when the parties have a common interest in being efficiency-seeking and consistent results in arbitration. In general, it might normally be expected that only a single proceeding would, prima facie efficiently handle a set of interrelated disputes arising under a particular commercial transaction.

A single proceeding would also eliminate any chances for inconsistent rulings. Alternatively, and the parties may wish to resolve a set of related disputes in separate, but coordinate proceedings. With their vast jurisdiction, the courts can utilize their rules and achieve efficiency, as well as consistency as the primary objectives, either through consolidation or coordination of related information." proceedings.

However, arbitration agreements typically do not directly address such objectives in a concrete way. Yet arbitration procedures have yet to directly address Its jurisdiction depends on the consent of the parties, solutions to problems of multiple jurisdiction in a state can be achieved in various ways as discussed above contracts and multiple disputes are likely to be seen in either far-sighted drafting of the submissions to arbitration, or in some cases, careful interpretative analysis. In arbitration, when there are resultant disputes regarding two or more contracts, such contracts do not demonstrate a detailed or express intent to arbitrate

³² Lucy Reed, *Arbitration and the Energy Transition*, 39 *Arb. Int'l* 1 (2023).

³³ United Nations, *The Sustainable Development Goals Report* (2022).

³⁴ Gary Born, *International Commercial Arbitration* 83–85 (3d ed. 2021).

³⁵ David R. Haigh KC & Paul Beke, *Multiple Contracts and Multiparty Energy Arbitration*, in *The Guide to Energy Arbitrations* (1st ed., Global Arbitration Review).

the disputes together, further when three or more where the parties are in related disputes, interpretive, procedural, and fairness issues proliferate.

Such challenges are not uncommon in energy arbitration cases. Their quest for exploiting ever elusive resources, as a rule, energy companies attempt to reduce their risks as well as their own capital expenditure with the help of others; hence, joint ventures in these areas are established:

- onshore exploration and production (both drilling for oil and gas and mining of oil & gas, Sands & coal)
- offshore exploration and production
- Processing plants (Oil and Gas and Petrochemicals)
- liquid natural gas processing and
- shipping pipeline, tanker ship or rail transportation, and
- storage generation, cogeneration, and transmission of electricity from traditional and renewable resources.

Such kinds of complex joint venture projects can involve not only multiple contracting energy companies and multiple owners of various rights, but also multiple contracts covering the different facets of the projects themselves. The construction of energy mega-projects also usually involves a large number of parties, hence often results in large chains of contracts. In the joint venture model as well as the construction model, disputes relating to energy involve multiple contracts and multiple parties.

Arbitration is normally involved in energy projects and energy-based business and commercial transactions, particularly international ones. This means that the sector normally encounters cases of multi-contract and multiparty arbitration and that we will see how to address jurisdiction and interpretation, as well as procedural fairness concerns.

8.1 Arbitral Reasoning in Multi-Contract Energy Disputes

Laurent Aynès follows a theoretical framework that justifies multi-contractual arbitrage in instances *"where only the first contract between the parties provides for an arbitrage clause."* This theory argues:

"If the first contract provided for an arbitration clause but was formulated in a minimum or an incomplete form, the contract cannot exist on its own and can only have foreseen the subsequent contracts in which the fruition of the contract would take place; in this case, the arbitration clause in the first contract is intended to cover the disputes arising from the subsequent contracting agreements."

If the first contract cannot on its own produce disputes "because it has been conceived as being clarified by the subsequent contracts," the disputes provided for in the contract would then be those arising from the entire set of contracts.

"There is a danger of the arbitrage clause being reduced to the first contract alone: this would be useless."

Such a condition is normally included in a framework agreement or letters of intent that are based on a prima facie assumption of subsequent follow-up contracts. Even though it is always open to parties to exclude any initial arbitration clauses by specifically adopting alternative forms of dispute resolution in subsequent contracts, their failure to do so will signify their wishes to apply their original arbitration clauses. This view has already been adopted by several arbitral tribunals and courts. It was held that parties entered into a sole arbitration agreement in a decision rendered by a Swiss arbitral tribunal based on a framework agreement.

It had also held that other subsequent contracts had implemented or amended or arisen as a consequence of an initial agreement that contained the sole arbitration clause. Nevertheless, when subsequent contracts imposed novel and independent obligations or when subsequent contracts solely determined the dispute envisaged to be resolved under arbitration clauses, such clauses are normally refused.³⁶

³⁶ Zurich Chamber of Commerce arbitration, (4ééK) 20 7 B Com Arb 42K. See Hanotiau, at para. 266.

Table: Application of Arbitration Clause Across Multiple Contracts

Scenario	First Contract (Arbitration Clause)	Later Contract (No Arbitration Clause)	Judicial / Tribunal Finding
(i) Joint Venture & Ship Purchase	joint venture agreement to operate a cruise line-arbitration clause produced	agreement for the purchase of an additional ship	Held that arbitration clause in the joint venture agreement encompassed dispute as to financing obligations for ship purchase on basis that later contract gave effect to original arrangement
(ii) Share Sale & Escrow Arrangement	Share sale agreement that includes an arbitration clause and price adjustment mechanism	Escrow agreement to hold the funds until the determination of the final price	The French Cour de Cassation held that the arbitration clause in the share sale agreement extended to the escrow agreement on the ground that the escrow arrangement was directly connected and ancillary to the main transaction
(iii) Sale of Goods & Unwinding Agreement	Agreement for the sale of a quantity of rice, containing an arbitration clause	Subsequent agreement cancelling the sale by return of goods and repayment	The Paris Court of Appeal held that the unwinding agreement was a direct consequence of the initial sale and thus was also subject to the arbitration clause.

8.2 Judicial Control, Consent, and Limits of Arbitration

As a general proposition, it is fair to say that both Canada and the US are arbitration friendly jurisdictions. Efforts in Canada to harmonize and modernization of legislation that governs international commercial arbitrations evinces a continued commitment to the promotion of arbitration as an alternative dispute settlement means in Cross-border disputes besides, the jurisprudential developments above nevertheless emphasize the great deference that the Canadian courts have for arbitral proceedings. Canadian the courts show deference to an arbitral tribunal's authority to decide upon its own jurisdiction, and the courts will only interfere with that authority in exceptional circumstances, (such as unconscionability as was seen in Uber). Where third party interests may be affected by arbitration, Canadian courts have shown a disposition to engage in a balancing exercise that will respect the rights of parties to an arbitration agreement, and persons who may have claims outside of Agreement. Even where there is some discord about whether to consolidate arbitral proceedings, in the absence of the unanimous consent of the parties, the reasoning of Canadian courts show their concern for balancing respect for the contractual the agreement of the parties to arbitrate with the interests of justice

A perusal of recent jurisprudence emanating from the US reveals an apparent concern for underlying themes (including consent, competence-competence, and third party interests) similar to those set out above informing Canadian courts. The manner in which these themes present themselves is, however, distinct. Unlike Canada, within which the power of the arbitrators to choose the course by which they would settle the case is limited own jurisdiction is set down in legislation; in the US, questions of competence-competence are determined by the mutual consent of the parties involved. This explains the divide that has been created in the courts in both jurisdictions in order to address a different set of questions. Therefore, in the US, one finds a jurisprudence that revolves around whether the agreements reached by the parties in the Arbitration Clause were specifically agreed to by the parties, as well as whether the reference to the rules of in such a clause has the clear and express implication that the arbitral panel has competence.

In the united States of America and Canada, judges show deference to the arbitrators. Similarly, in both countries, the courts defer to the regulators, especially to regulate complex industries that have a high level of national importance. This refers to Interpretation of the Regulators' Home Statute, Potential conflicts that remain are those involving regulators and arbitrators. Many regulated public utilities have arbitration clauses included within the contracts. Assume a regulated utility with the following characteristics enter into a contract with a large commercial customer who has an arbitration clause regarding price. And suppose that in this case a dispute arose concerning the mentioned price. Is this dispute resolved The answer to that question would be, before the arbitration panel or before the regulator If it is before an arbitration panel, will the principles mentioned above under public utility law will apply In most cases, an energy regulator will have jurisdiction to ensure that the pricing set by the regulated utility is just and reasonable.³⁷

Furthermore, seat selection is important in consolidation processes between partners because certain seats can facilitate these processes when partner governments' policies conflict in a country or The parties are intended to provide a mechanism that facilitates the multiparty arbitration. At the same time, a flawed selection of the seats could surprise a party with unwanted court-ordered consolidation unless parties contract out of statutory provisions, either expressly or implicitly, the following jurisdictions appear to allow judicial discretion to order consolidation, despite objection

- about a third of US states
 - Alaska, Arizona, Arkansas, Colorado, Hawaii, Michigan, Minnesota, Nevada, New Jersey, New Mexico, North Carolina, North & Dakota, Oklahoma, Oregon, Utah and Washington, as well as the & District of Columbia
- A Massachusetts act purports to allow a court to consolidate even in the face of an arbitration clause that excludes consolidation, but that effect would be nullified by the federal Arbitration Act.
 - the Netherlands
 - New Zealand and
 - some Australian states¹ New South Wales, victoria and South Australia

The rule permitting consolidation is mandatory in these jurisdictions, meaning that courts may order consolidation despite party objection and even when there is no provision for consolidation in the arbitration clause. In trying to enforce awards in the resulting consolidated arbitrations, courts in enforcing states might find that kind of court ordered consolidation would justify refusal to enforce the award or parts of It concerns recognition and enforcement, under the New York Convention. The grounds for refusal in those cases would be:

- the award deals with a difference not contemplated by or not falling within the terms, of the submission to arbitration
- the composition of the arbitral authority or the arbitral procedure was not in according to the agreement of both parties and
- Consolidation without unification by agreement or consent is against a state's public policy.

The courts of the enforcing state may not accept that the parties' agreement on the seat – and implicitly its laws-is sufficient to override other party intentions.

³⁷ Disputes Involving Regulated Utilities, The Guide to Energy Arbitrations (Global Arbitration Review).

When negotiating on energy-related ventures, the parties ought to take into account the prospect of resolving the resulting disputes through these alternatives “These are contracts that can arise under multiple contracts and can involve more than two parties.” The contracting parties should clearly reveal their intentions for multi-contract and multiparty arbitration. using the sample clauses set out above is one way of doing that. Another way is to appropriate institutional provisions.

Similarly, parties that do not wish to have multi-contract or "Multiparty arbitration," they ought to say so expressly. If they do not, they may be surprised when tribunals or courts read their arbitration clauses to cover multiparty or multi-contract arbitration situations? Arbitration Surprises are in store for the parties if the seat is not chosen properly become subject to unwanted law. In the face of disputes, there is need for all parties involved to be aware of the benefits of cooperatively working through any multi-contract or multiparty complications. A range of coordination – from temporarily staying one arbitration, to sharing one tribunal, to coordinating separate arbitrations in multiple ways, to consolidating the arbitrations – may suit the case. Joinder and intervention may also be suitable.

An overly combative approach over procedure can be counter-productive.; for example, it would be an effort to make a distinction between parties in respect of arbitrator appointment rights may lead to an unenforceable award. In complicated energy projects, parties have tools to make the arbitration of related disputes efficient and consistent. The prospect of multi-contract and multiparty disputes in the energy sector is a very real one.

9. CONCLUSION AND RECOMMENDATION

Conclusion

The energy sector is now undergoing a transition from fossil fuel use to renewable energy sources. This has affected how businesses and governments establish themselves in the energy sector because there are many more factors affecting the viability of a business than just the contract. In addition, businesses developing renewable energy projects must be able to invest for the long term, and they will have to comply with a variety of regulations in addition to making investments across borders. In addition, there are extremely high levels of financial and technical risk involved with developing renewable energy. Because of all these characteristics associated with developing renewable energy projects there is an increased probability that disputes between renewable energy project owners and other stakeholders will arise. These disputes will occur for a variety of reasons including but not limited to contracting disputes, changes in regulation, withdrawal of incentives, delays in project execution, and conflicts between public policy and private commercial expectations.

This research provided clear evidence of how the electric power industry is evolving away from investment treaty arbitration to international commercial arbitration for resolving disputes stemming from renewable energy project development. Recent developments in the international landscape may have contributed to this shift; the exit of multiple countries from treaties (e.g., the Energy Charter Treaty) has reduced the predictability of investor-state dispute settlement systems. As such, there has been increased reliance on contracts, specifically Power Purchase Agreements, EPC Contracts, and Shareholders Agreements, for investment protection and for resolving disputes.

Therefore, the dispute resolution process defined in these contracts now is becoming the primary method to resolve disputes related to renewable energy projects, and as such, International Commercial Arbitration has become the predominant means for resolving disputes regarding renewable energy projects. This article examines and compares the benefits of I.C.A. as they pertain to resolving disputes relating to renewable energy projects. The benefits of I.C.A. include but are not limited to: flexible procedural rules, the ability of the parties to choose their arbitrator(s), confidentiality of the arbitration process, neutrality of the arbitrator(s), the ability to appoint technical experts to serve as arbitrators and the enforceability of I.C.A. awards under the New York Convention. In addition to the advantages of I.C.A., arbitral institutions have met the renewable energy sector's unique needs by creating emergency arbitration procedures, expedited procedures and enhanced interim relief options to make arbitration more effective in the time-sensitive nature and capital-heavy nature of renewable energy projects. Although international commercial arbitration has many benefits, this research indicates that it also has some limitations. For example, a lot of times in

disputes in renewable energy there is more than one party involved; there are often many agreements involved with multiple parties where there may be a lot of contract language between various parties involved which creates various jurisdiction problems due to the complexity of each contract.

The third finding related to success factors is that domestic courts often play a role in resolving disputes that have occurred between parties relating to agreements where the parties have entered into an international arbitration process. More often than not, international arbitration is perceived as being less likely to resolve this type of dispute. Thus, it is essential for international commercial arbitration to have a lot of institutional support and be able to provide many of the same types of remedies and enforceability that exists with national courts in order for all parties involved in international arbitration agreements to successfully resolve disputes.

The renewable energy market in India has experienced a significant increase in disputes, such as those relating to the renegotiation of tariffs, the termination of power purchase agreements (PPAs), delays in land acquisition, and claims of force majeure. The Indian courts have taken a pro-arbitration position in recent years, upholding the principle of party autonomy, recognising foreign-seated arbitrations, and recognizing the enforcement of foreign awards pursuant to the Arbitration and Conciliation Act, 1996. This pro-arbitration stance aligns with global best practices and promotes confidence among investors in India. However, the efficacy of international commercial arbitration as a means of supporting investments in the renewable energy sector is dependent on the ability of the legal system in India to offer legal certainty, regulatory stability, and consistent judicial interpretation.

In conclusion, at this time, international commercial arbitration is becoming an integral part of the renewable energy sector as a dispute resolution mechanism, especially during a period of significant regulatory upheaval due to the decrease in publicly available benefits and the gradual retreat of treaty-based protections. While international commercial arbitration cannot eliminate all types of investment risk associated with renewable energy projects, it does represent a flexible and adaptable means of addressing disputes in a manner that balances commercial certainty against the evolving feel of the government. The continued relevance of international commercial arbitration as a means of dispute resolution in the renewable energy sector will depend on its capacity to adapt to the new and different challenges presented by the transition to a sustainable energy future, including sustainability, public interest, and increasingly complex commercial contracts.

Recommendations

When developing renewable energy projects, two things need to be addressed. **First**, there should be more emphasis on developing contracts that are accurately drafted. Arbitration clauses should reflect the need to accommodate contracts that are signed between multiple parties and have multiple contracts associated with them. Future growth of renewable energy and resulting disputes will require the resolution of these disputes through arbitration. Clear dispute resolution provisions will also help to reduce the number of jurisdictional challenges and procedural delays that will occur in the future.

Second, regulatory stability and clear regulations is a priority for host states. States have a clear sovereign right to regulate within their boundaries. However, regulating abruptly or by adopting retroactive regulations to policies that involve renewable energy will create an environment that does not support investor confidence; because of this, investors may be less likely to continue with future projects. Therefore, by providing a clear regulatory framework with transitional measures, private investors can have an opportunity to develop new projects while providing the necessary flexibility to accommodate changes in renewable energy policies.

Thirdly, arbitration institutions should continue developing rules specific to the Renewable Energy sectors; this would include expanding the use of emergency arbitration and facilitating faster resolution of time-sensitive disputes, as well as encouraging the appointment of arbitrators with technical knowledge and relevant industry specializations. In particular, institutional innovation is needed to ensure that arbitration supports operational viability for renewable energy projects.

Fourthly, courts must exercise appropriate levels of authority over arbitration through the use of appropriate forms of judicial oversight of arbitral decision-making. While there will always be some level of judicial intervention required for the protection of the integrity of the arbitration process, it is critical that Courts provide judicial supervision on all public-interest issues, especially with respect to regulatory jurisdiction and enforcement of arbitral awards. By providing consistent and fair judicial interpretation of arbitrations, Courts enhance the public's faith in arbitration as an effective dispute resolution mechanism and reduce the risks associated with enforcement of arbitral awards.

Finally, future research and policy discourse should focus on the intersection between arbitration and sustainability objectives. As renewable energy disputes increasingly implicate environmental and social considerations, arbitral reasoning must evolve to accommodate broader principles of sustainable development without undermining contractual certainty.

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