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## National Treatment and Foreign Investment in Renewable Energy: A Treaty Law Perspective

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### Abstract

The problems caused by climate change on one hand and energy shortages on the other are often in the headlines. Accelerating the global deployment of renewable energy is crucial for addressing climate change and enhancing energy security here and there. Achieving this goal necessitates substantial financial and technological investments, which can be bolstered by both national laws and international arrangements. Notably, International Investment Agreements (IIAs) play a critical role in facilitating the inflow of foreign investments, particularly in the renewable energy sector. Among the provisions of these agreements, the Standard of National Treatment (NT) is pivotal in liberalising investment flows and encouraging foreign participation. Therefore, this article examines how NT clauses can be more effectively tailored to protect and promote foreign investments in renewable energy - an important issue from economic, legal, and academic perspectives. Through a detailed analysis of NT clauses in existing IIAs (*lex lata*) and by providing recommendations for future agreements (*lex ferenda*), the article concludes that while some progress has been made, most IIAs still take a superficial approach to renewable energy investment

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protection and promotion. Notably, the absence of pre-establishment NT clauses in most agreements limits their efficacy in this context. This article underscores the proper legal techniques that need to be considered in IIAs by states planning to promote foreign investments in this sector.

### **Keywords**

Foreign Investments, International Investment Agreements, National Treatment, Renewable Energy, Performance Requirements.

### **Introduction**

The world faces a profound challenge from global warming and climate change, primarily caused by extensive fossil fuel consumption. Climate-related disasters, including rising sea levels, floods, and droughts, are affecting various regions. Unlike fossil fuels, renewable energy sources produce little to no carbon dioxide (CO<sub>2</sub>), making them vital in combating climate change (Qian, Ghaziani, 2024: 1). The International Renewable Energy Agency (IRENA) asserts that “renewable energy supply, increased electrification of energy services, and energy efficiency can deliver more than 90% of needed reductions to energy-related CO<sub>2</sub> emissions, and renewable energy and electrification alone deliver 75% of emission reductions” (IRENA, 2019: 11). Therefore, an increasing number of countries are developing initiatives to promote renewable energies as a key solution to global energy and environmental concerns. However, the widespread adoption of renewable energy technologies requires billions of dollars in investment, with returns expected only in the long term. Unfortunately, many developing states - particularly those with the most significant energy needs - lack the financial and technological resources necessary to support a swift transition to renewable energy. Without foreign investment, accelerating the uptake of renewable energy in these regions remains a formidable challenge (Qian, Ghaziani, 2024: 2).

International Investment Agreements (IIAs) have a crucial role to play in promoting foreign investments in this sector and facilitating cross-border renewable energy projects. By ensuring fairness between foreign investors and

host states and mitigating investment and trade risks, IIAs can support the advancement of renewable energy initiatives (Leal-Arcas, Nalule, 2021: 2118; Wilder Am, Drake, 2016: 360-1). Although there is no direct, mono-causal link between an IIA and investments flows, agreements containing robust investment protection and liberalisation obligations can promote investments, including in renewable energy (UNCTAD, 2010: 117-136).

Despite the potential of IIAs, the literature on global energy governance notably lacks emphasis on their role in protecting and promoting investments in the renewable energy sector. Scholars have advocated for introducing a normative layer to the investment law system, aiming to reorient obligations towards climate stabilisation and actively safeguard investments in renewable or low-carbon technologies (Schefer, 2016: 383-394). However, most IIAs are not tailored to the specific needs of renewable energy investments. Instead, they typically comprise a combination of obligations that impact foreign investments both directly and indirectly (Ghaziani, Ziaee, & Fazaeli, 2023: 851). The Standard of National Treatment (NT) — sometimes regarded as the most crucial standard of treatment within IIAs — can play a vital role in protecting and promoting renewable energy investments. It may achieve this by creating a level playing field, ensuring that host states do not discriminate against foreign investors/investments compared to domestic counterparts through their laws (Collins, 2023: 104). Additionally, NT obligations have the potential to create a more favourable legal environment, ideally encompassing all stages of the renewable energy supply chain rather than being confined to the post-establishment phase (Sornarajah, 2021: 134-48).

It is against this backdrop that this article addresses the key question: “How may NT clauses more effectively protect and promote foreign investments in renewable energy, and what are the legal characteristics of an optimal NT clause?”. Following an explanation of the research methodology, Part Two explores the concept and significance of NT. Part Three examines NT clauses under international trade and investment agreements, while Part Four analyses NT clauses conducive to renewable energy investments. The article concludes

that the current configuration of NT clauses fails to adequately protect and promote foreign investments in renewable energy, as most IIAs adopt a superficial approach to the needs of this sector. Consequently, it identifies specific protective aspects of the NT standard that could be incorporated into future agreements as legal techniques for improving investment promotion.

### **1. Methodology**

This article primarily employs a qualitative research methodology, analytically describing NT obligations and relevant clauses under IIAs and trade law instruments. Rather than relying on the practical outcomes of these obligations, it adopts a deductive approach to derive conclusions from NT clauses regarding renewable energy investments. We also reviewed over 80 secondary sources, including books, journal articles, and reports. Although case law and practical outcomes of IIA clauses are referenced to strengthen the analysis, this research is not inductive in nature. This distinction is important, as no international investment arbitral award has yet been issued in favour of renewable energy investors for an NT obligation breach, to the best of our knowledge. Moreover, even the success of well-crafted NT clauses depends on several economic, political, and legal factors. Nonetheless, as we will demonstrate, properly drafted NT clauses have significant legal potential to safeguard renewable energy investments and promote their growth, *ceteris paribus*. This conclusion is drawn primarily from the views of legal scholars, or “doctrine”, as understood in civil law traditions.

### **2. The Concept and Significance of National Treatment**

NT provisions have been embedded in commercial and trade agreements since the Middle Ages, gaining significant prominence during the 19<sup>th</sup> century. These provisions were also incorporated into treaties addressing other issues, such as the Paris Convention for the Protection of Industrial Property 1883. Today, NT clauses are integral to both trade and investment agreements, and in their most basic form, they require that foreign investors and their investments be treated as

favourably as domestic investors and their investments (Reinisch, 2015: 846-48). The importance of NT has significantly increased in modern international law, as it may now encompass the right to enter the host state and the right to establish a business (Sornarajah, 2021: 422-24). Today, NT directly influences guarantees against expropriation, dispute settlement mechanisms, incentive policies, the screening of foreign investment entry, and performance requirements, etc. (Sornarajah, 2021: 133-48).

The scope of NT can vary depending on the treatment accorded to the host state's nationals and the manner in which NT is incorporated into legal instruments (Kriebaum, 2013: 330-32). Each legal instrument may impose binding or non-binding legal obligations for some or all components of NT. For example, the OECD Draft Convention on the Protection of Foreign Property 1967, which does not explicitly mention 'national treatment', prohibits only 'unreasonable and discriminatory measures' that impair the management, use, enjoyment, or disposal of foreign property (Reinisch, 2015: 850). Furthermore, parties may choose to exclude certain sectors from the application of NT at the pre-entry stage or post-establishment phase, or both (Sornarajah, 2021: 134-48).

It is important to recognise that discriminatory treatment in the trade domain (e.g., imports) can also constitute a violation of NT if it can be demonstrated that this discriminatory treatment has negatively impacted foreign investment or investors (Ziegler, 2015: 1795). In other words, the economic principles governing international trade can be applied to international investment, as trade and investment are not only partially interchangeable but also mutually supportive. This overlap facilitates the implicit adjustment of certain terms within legal instruments without requiring explicit reconfirmation of the state parties' intent, and it aids in resolving legal disputes (Tomoko, 2020: 21). This is possible by invoking the "relevant rules of international law applicable in the relations between the parties", as outlined in Article 31(3)(c) of the Vienna Convention on the Law of Treaties 1969.

Therefore, in examining the role of NT in promoting investment in the renewable energy sector, it is essential to consider the NT clauses included in

IAs, as well as the relevant provisions of trade law, particularly those enshrined in the World Trade Organisation (WTO) agreements (Tomoko, 2020: 4).

### 3. NT Clauses in International Investment Agreements

Today, approximately 60% to 87% of IAs include a NT clause (UNCTAD, 2025; Ortino, 2019: 2; Bonnitcha, Poulsen, and Waibel, 2017: 94). NT obligations are similarly found in key WTO agreements, such as Article III.4 of the General Agreement on Tariffs and Trade (GATT) and Article II.1 of the Agreement on Trade-Related Investment Measures (TRIMs).

Although, from an economic perspective, GATT and other WTO agreements might be considered ‘incomplete agreements’ due to factors such as the limited scope of regulations, the vagueness of certain concepts, and the ambiguous nature of exceptions, they nonetheless play a crucial role in protecting the interests of foreign investors (Horn, Mavroidis, 2008: 1114-24). In other words, in the absence of an applicable IIA, these agreements can, to a large extent, provide protection for foreign investors. Additionally, IAs have greater potential to promote renewable energy investments through NT. This is largely due to the bilateral and regional nature of these instruments, which affords governments more discretion and authority over their content (*libertas contrahendi*).

Currently, there are more than 2,200 IAs that stipulate NT, with many more addressing various requirements of this standard (UNCTAD, 2025). It is important to note that, to date, NT claims have yielded varying results in arbitral awards, with a relatively low success rate of around 13% (Bonnitcha, Poulsen, and Waibel, 2017: 94).<sup>1</sup> This is partly attributable to the structure of NT clauses in different IAs, as will be discussed below.

The Energy Charter Treaty (ECT) represents a comprehensive framework for investment and trade in the international energy sector. Under Article 10(7) of the ECT, “Each Contracting Party shall accord to Investments in its Area of Investors of other Contracting Parties, and their related activities including

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<sup>1</sup> E.g., *Olin Holdings Limited v Libya (Final Award)* (ICC, 25 May 2018) para. 187; *William Ralph Clayton v Canada (Award On Damages)* (PCA, 10 January 2019) paras. 19 and 93-124.

management, maintenance, use, enjoyment or disposal, treatment no less favourable than that which it accords to Investments of its own Investors [...]”. In addition, the ECT stipulates access to capital and markets and prohibits further reservations by the parties (ECT, 1994: art. 46).

Similarly, the United States–Mexico–Canada Agreement (USMCA) addresses NT in the context of trade and investment (USMCA, 2018: arts. 2.3(1) and 14.4(1)). Although the extent of reservations under this agreement is more limited compared to the previous North American Free Trade Agreement (NAFTA), the parties (particularly Mexico) have made reservations to various clauses, including NT (Shikher, Torsekar, 2019: 141-170). Other IIAs follow a similar pattern, and it is rare for NT to be provided in its entirety.

However, when analysing NT clauses across different IIAs, several determining factors influence the overall effectiveness of this standard. Prominent among these are the scope of NT, the nature of exceptions, and performance requirements.

### **3.1. The Scope of National Treatment**

As with other standards of investment protection, determining the scope of NT hinges on how “investment” is defined within a given agreement. The concept of investment lacks a universally accepted definition, and its interpretation can vary significantly from one agreement to another (e.g., The Framework Agreement on the ASEAN Investment Area, 1998: art. 2). While some IIAs focus on foreign investment in enterprises, others - particularly model treaties drafted by the United States and other capital-exporting countries - tend to adopt a broader definition, encompassing a wide range of assets (Sornarajah, 2021: 14-16). For instance, an agreement might extend protection to intellectual property as a form of investment. Thus, not only the definition of investment but also the specific protections provided by each agreement must be carefully considered. The application of NT in any sector largely depends on the scope of investments covered under the relevant instruments.

### **3.2. Exceptions to National Treatment**

IIAs often contain general exceptions relating to public health, environmental

protection, national security, and other critical areas. Additionally, they may contain specific exceptions to NT, particularly for industries that are heavily regulated, feature monopolies or significant government ownership, or are central to a nation's economy (Fitz-Gerald, Curnow, 2008: 128). Certain economic sectors or standards of treatment may also be excluded from NT provisions. Notably, some IIAs even allow exceptions for "development purposes" (e.g., Agreement between Italy and Morocco for the Promotion and Protection of Investment, 1990: art. 3(3); Reinisch, 2015: 851).

The issue of exceptions to NT is of significant importance. It was, in fact, the demand for NT exceptions by various states that ultimately prevented consensus among negotiating parties during the Multilateral Agreement on Investment (MAI) talks, despite general agreement on the core principles of investment protection (Schill, 2009: 365; Muchlinski, 2000: 1033-1053).

Many IIAs include a list of sectors where foreign investment is either prohibited or restricted. Some sectors are reserved for state-owned enterprises, others for local businesses, and some regulations mandate that foreign investment can only occur through joint ventures with domestic entrepreneurs. For example, until the constitutional reforms implemented by the Mexican government in 2014, which ended the 75-year monopoly of *Pemex* (Mexican Petroleum), a state-owned oil company, the petroleum sector was reserved exclusively for this entity. Consequently, under NAFTA, Mexico prohibited foreign investments in this sector (Dadashova et al., 2020). In such cases, while the question of discrimination between nationals and foreign investors could arise, this discrimination is often justified on economic grounds, and there is currently no international legal basis for claiming a violation of NT in these circumstances (Sornarajah, 2021: 137-38).

No state grants unrestricted market access to foreign investors; therefore, sectoral exceptions are often included, particularly in agreements that provide pre-entry rights. These exceptions help balance the interests of foreign investors with the states' ability to regulate key sectors. They are often delineated through a negative list, a common approach, or through a positive list, as employed under

Article XX of the General Agreement on Trade in Services (GATS). The positive list approach, although less commonly used, is inherently narrower in scope, allowing states to offer very limited pre-entry rights of investment (De Mestral, 2015: 688). In general, making reservations can be seen as a legal technique that balances the desire for greater investment liberalisation with the need to protect certain sectors, including renewable energy. For instance, under the Comprehensive Economic and Trade Agreement (CETA), Canada has reserved the right to adopt or maintain measures limiting market access in the energy sector in Ontario and Prince Edward Island (CETA, 2016: annex II). However, these reservations are not necessarily permanent. Some agreements include provisions that require the gradual opening of reserved sectors within a specified timeframe. For example, under the ASEAN Comprehensive Investment Agreement (ACIA), certain reserved sectors may be opened to foreign investment following a stipulated period or upon meeting specific conditions (ACIA, 2009: art. 10.1). In such cases, exceptions are structured to allow parties to gradually progress towards a higher level of investment liberalisation (ACIA, 2009: art. 2(a) – (b)).

Similarly, the non-precluded measures clause serves as another form of exception. This clause comes into play during exigent circumstances when the host state may find it impossible to fulfil its obligations. A stark example of governments' failure to comply with their investment obligations could be seen during the Covid-19 pandemic, when the number of foreign investment laws and policies adopted by states in 2020 rose to 152, marking an almost 40 per cent increase from 2019. Around 41 per cent of these measures involved investment regulation and restrictions (Bian, 2023: 381). In such cases, if a host state compensates domestic investors but fails to extend the same compensation to foreign investors, the latter may invoke the applicable NT clauses regarding any compensation received by domestic investors (e.g., US-Argentina BIT, 1991: art. IV(3)).

### **3.3. Performance Requirements**

Performance requirements are also inconsistent with NT, as they are typically

imposed by host states to extract maximum benefits from foreign investments (Sornarajah, 2021: 429). These requirements can take various forms, including local content mandates, trade balancing obligations, foreign exchange restrictions, export controls, and requirements for technology transfer or localisation (Ghaziani et al. 2023: 66). Such conditions are viewed as exceptions to NT because they are not generally imposed on domestic investors.

Instruments that incorporate NT clauses often include specific provisions excluding performance requirements. For example, under TRIMs, performance requirements that affect trade in goods in a way that contradicts Article III or Article XI (prohibitions on quotas) of GATT are prohibited. Similarly, GATS prohibits performance requirements that adversely affect trade in services. These prohibited requirements include those related to export performance, domestic content in products, domestic sourcing, trade balancing (restrictions on imports based on foreign investor exports), and foreign exchange balancing (restrictions on access to foreign exchange based on the foreign exchange generated through exports) (Chaisse, 2016: 271). The USMCA also contains a comprehensive set of prohibitions against performance requirements, reflecting a trend that is less common in other IIAs (USMCA, 2018: art. 14.10). In line with this, most US and Canadian IIAs include extensive prohibitions on performance requirements, applicable to both the pre-entry and post-entry phases of investment (Chaisse, 2016: 271).

#### **4. Renewable Energy Investment-Friendly NT Clauses**

Renewable energy encompasses various forms, such as bioenergy, geothermal, hydropower, ocean energy, solar, and wind energy. However, the classification of goods and services related to these energy sources is not definitive. For instance, within the framework of the WTO, biofuels are classified differently: ethanol is categorised as an “agricultural good”, while biodiesel is classified as an “industrial good” (Ghaziani et al. 2023: 59-60). Consequently, the level of protection and treatment offered by these agreements may vary. Overall, the WTO provisions concerning renewable energy are not explicitly defined, nor do

they systematically address the energy sector (Wilder Am, Drake, 2016: 360-70). Nonetheless, at least six cases have been brought to the WTO Dispute Settlement Body (DSB) against renewable energy policies adopted by member states. The most notable of these are the cases initiated by Japan and the European Union (EU) against Canada's Domestic Content Requirements (DCR) under the Feed-in Tariffs (FITs) programme adopted by the province of Ontario. Both the Panel and the Appellate Body found that the DCRs under the FIT programme were inconsistent with the NT obligations under Article III.4 of the GATT and Article II.1 of the TRIMs (DS4 WT/DS412/AB/R, 2013: para. 6.1; WT/DS426/AB/R, 2013: para. 6.1). NT, being a central principle of the WTO, ensures that the existing renewable energy uncertainties in the multilateral trading system have not deprived the sector of considerable NT protections.

However, legal uncertainties extend beyond WTO agreements in a far more complicated manner, as parties to IIAs have the discretion to broaden the scope of renewable energy protections or offer equal treatment across different types of investments. On the other hand, the protection of foreign investments in renewable energy may be either explicit or implicit. For instance, the Trade and Cooperation Agreement between the EU and the UK explicitly mentions renewable energy in several articles (EU-UK Trade and Cooperation Agreement, 2020: Part. 2, Title. VIII). In contrast, the Regional Comprehensive Economic Partnership (RCEP) does not explicitly mention renewable energy in a separate provision. If IIAs directly address renewable energies and their investment requirements by tackling barriers and mitigating perceived risks, the results would likely be substantial, leading to increased investment and trade in this sector (Leal-Arcas, Nalule, 2021: 2118; Wilder Am, Drake, 2016: 360-361). Such provisions would also enhance predictability and confidence among would-be investors, a crucial factor for long-term, capital-intensive renewable energy projects (Komendantova, Schinkoa, Patt, 2019: 404).

One effective way to promote the global development of renewable energy is by establishing local commercial presence and subsidiaries of renewable energy companies. Particularly, the presence of large international corporations in

regional markets offers substantial benefits, as they often rely on local labour, creating job opportunities and facilitating the transfer of technology and knowledge (Ghaziani, Ziaee, & Fazaeli, 2023: 851). Studies suggest that applicable BITs have positively influenced the number of multinational firms and the number of plants per firm, particularly for German multinationals (Ghaziani et al., 2023: 63). However, a common requirement for international corporations and their plants is the need for land. In solar energy alone, every megawatt of installed capacity requires nearly seven acres of land. While land ownership is not always necessary - lease or concession agreements may suffice - land or real estate acquisition often falls outside the scope of NT. Most IIAs express reservations about foreign land ownership due to the principle of territorial sovereignty (Ghaziani, Ghaziani, 2021: 207-208). Some IIAs explicitly restrict land rights either through reservations or within the context of the agreement itself. For instance, the ASEAN Comprehensive Investment Agreement (ACIA) excludes land from treaty protections against expropriation (ACIA, 2009: art. 14.1; EU-UK Trade and Cooperation Agreement, 2020: annex. SERVIN-1, reservation 1). However, a few instruments determine the scope of land rights by adopting a broad definition of investment, typically including immovable property and natural resource concessions (i.e., land concessions, leases, etc.). For example, Article 1.2(v) of the BIT between Colombia and the UK explicitly refers to “concessions to explore, grow, extract or exploit natural resources”. Principally, the promotion of investment flows into land-intensive sectors such as solar and wind energy is more likely to happen under IIAs that grant similar land rights to both foreign and national investors.

Another crucial aspect of NT is its alignment with the broader goals of investment liberalisation. Empirical evidence suggests that merely offering protections for foreign investments after establishment may only marginally enhance investment promotion. Therefore, within the WTO framework, it is difficult to find an instrument that does not ultimately pursue liberalisation of trade and investment, with many provisions designed to ensure pre-entry NT (Sornarajah, 2021: 330-331; Schefer, 2016: 385). Generally, adopting such

provisions helps achieve a higher degree of liberalisation. A notable example of such provisions can be found in Article 3(1) of the US Model Bilateral Investment Treaty (US Model BIT) 2012, which stipulates that “Each Party shall accord to investors of the other Party treatment no less favourable than that it accords, in like circumstances, to its own investors with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments in its territory”. The term “establishment” here clearly indicates a pre-establishment approach. IIAs signed by European governments also demonstrate a shift from the traditional post-establishment model. Under the ECT, providing NT at the pre-establishment stage is contingent upon the “endeavour” of host states, which does not impose a binding obligation (ECT, 1994: art. 10.2). Another example of pre-establishment provisions can be found in the Comprehensive Economic and Trade Agreement (CETA) 2016. Article 8.6(1) of CETA states that “Each Party shall accord to an investor of the other Party and to a covered investment, treatment no less favourable than the treatment it accords, in like situations, to its own investors and to their investments with respect to the establishment, acquisition, expansion, conduct, operation, management, maintenance, use, enjoyment and sale or disposal of their investments in its territory”. Similarly, the USMCA accords NT to investors from other parties with respect to the establishment and acquisition of investments (USMCA, 2018: art. 14.4(1)). Clearly, the prevailing trend among IIAs is moving towards greater liberalisation and the recognition of a right to establishment. However, the grant of such a right is rarely absolute. The most extensive example of this is the right of establishment granted to all citizens and companies operating within the EU under Articles 49-53 of the Treaty on the Functioning of the European Union. It is important to note that establishment rights do not necessarily liberalise the admission of foreign investments in the renewable energy sector, as parties may choose to impose broad limitations on certain sectors, typically through a negative list, or to exempt specific regional governments and policies from the scope of their obligations (Sornarajah, 2021: 134-5; De Mestral, 2015: 688).

Protecting intellectual property rights is another concern. Although NT has long been central to international intellectual property law, including such provisions in IIAs could facilitate international research and development in the renewable energy sector, as global research and innovation in renewable energy is increasing. For example, between 2017 and 2019, the sector experienced about a 28% growth in renewable energy patents filed worldwide, exacerbating investors' concerns about the status of their intellectual properties (Renews, 2020; Ruse-Khan, 2015: 1695-1700). While an agreement like the USMCA addresses intellectual property rights in detail (USMCA, 2018: ch. 20), the ECT, for example, delegates the protection of these rights to "the applicable international agreements for the protection of intellectual property rights to which the respective Contracting Parties are parties" (ECT, 1994: arts. 1.6, 1.12 and 10.10).

Taxes have also been a significant concern for renewable energy investors. Notably, one of the first renewable energy-related cases in the EU focused on this issue. In the *Outokumpu Oy* case, the European Court of Justice (ECJ) addressed whether Finland's excise duty on electricity imported from Sweden constituted discriminatory NT based on environmental taxation. The ECJ found that Finland's taxation system discriminated against electricity produced in other member states, violating EU treaty provisions on non-discriminatory taxation under both general EU law and EU energy policy (Talus, 2016: 96).<sup>1</sup> IIAs have different approaches to the application of NT to taxation. For instance, while Article 19.2 of the Investment Agreement between Japan and Georgia explicitly excludes taxation measures from the scope of NT, Article 3.6(b) of the Investment Treaty between Brazil and India generally exempts "any law or measure regarding taxation" from the agreement's jurisdiction. In contrast, some agreements provide detailed policies on taxation (e.g., EU-UK Trade and Cooperation Agreement, 2020: pts. GOODS 4 and 6, pt. 2 title. XI (ch. 5)).

Governments typically enact various laws and policies to protect and promote

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<sup>1</sup> European Court of Justice (ECJ), *Outokumpu Oy*, Case C-213/96, Judgment, 2 April 1998, Judgment, ECR I-1777.

investments in renewable energy, such as FITs, subsidies, renewable energy certificates, and research and development funding. However, these regulations can sometimes create obstacles for foreign investments (Crossley, 2019: 225-26; Wilder Am, Drake, 2016: 382-86). For instance, between 2011 and 2012, global investment in renewable energy declined by twelve percent, partly due to uncertainties about supportive policies in major developed economies (Wilder Am, Drake, 2016: 359). There is still no universal consensus on the legal nature and implications of such policies either. For instance, there is ongoing debate over whether FITs should be classified as subsidies or government procurement measures. The International Energy Agency (IEA) distinguishes between FITs and subsidies in its *Trends in Photovoltaic Applications* report, but some scholars still consider FITs a form of subsidy (IEA, 2013: 40-41; Wilke, 2011: 11). To date, these ambiguities remain unresolved, despite recent cases where WTO panels and the Appellate Body have engaged with the issue (e.g., WT/DS412/AB/R, 2013: para. 6.1; WT/DS426/AB/R, 2013: para. 6.1). If FITs are classified as subsidies under the WTO framework, they fall under the jurisdiction of GATT, TRIMs, and the Agreement on Subsidies and Countervailing Measures (ASCM). For example, GATT exempts “payment of subsidies exclusively to domestic producers” from the scope of NT (GATT, 1947: art. III.8(b)). On the other hand, if FITs are interpreted as a “purchase of goods by a government”, they may be considered government procurement rather than subsidies, thus falling under the jurisdiction of the Agreement on Government Procurement (GPA) 1994 (GATT, 1947: art. III.8(a)). To address such uncertainties, some IIAs have incorporated detailed regulations on subsidies and government procurement. For example, the Trade and Cooperation Agreement between the EU and the UK includes a separate annex on “Energy and Environmental Subsidies” and another on government procurement (EU-UK Trade and Cooperation Agreement, 2020: annex. ENER-2, and title. VI annex. PPROC-1). Infrastructure providers are particularly sensitive to government procurement practices, which are often seen as optional for states looking to liberalise procurement in this area. However, only about fifty countries are

parties to the GPA, and in many cases, their sub-federal and local institutions are excluded from its scope (Wilke, 2011: 11). Frustratingly, some IIAs have entirely excluded government procurement (e.g., Agreement between Hong Kong and the UAE for the Promotion and Reciprocal Protection of Investments, 2019: art. 2.4(b)), while others have merely committed to negotiating potential commitments in this area (e.g., Interim Agreement Establishing an Economic Partnership Agreement between the UK and Cameroon, 2021: art. 59). Additionally, some IIAs, such as the USMCA, exclude government procurement and various types of subsidies, grants, government-supported loans, guarantees, and insurance from the scope of NT (USMCA, 2018: art. 14.12(5)).

Whether policies like FITs are classified as subsidies or government procurement, they have another controversial aspect: the imposition of performance requirements. In many FITs, investors must source a certain percentage of materials from local suppliers to qualify for the policy's benefits. For example, Ontario's FIT programme required a minimum domestic content of 25-50% for wind projects over ten kilowatts and 50-60% for solar projects over ten kilowatts (Jha, 2012). Although such requirements appear to violate both Articles III and XI (quantitative restrictions) of GATT, countries like Spain, Brazil, Canada, and China have intermittently implemented them (Cozzi, 2012: 31). These requirements are considered a major policy impediment to foreign investments across the solar and wind energy value chains (OECD, 2015: 57). Research indicates that the FIT schemes in the Canadian provinces of Quebec and Ontario have increased the total costs of installed wind capacity by nearly fourteen percent per kilowatt (Hufbauer et al., 2013: 71–73). Promisingly, many IIAs contain explicit prohibitions of performance requirements (e.g., USMCA, 2018: arts. 14.10 and 14.12). In fact, these requirements are gradually disappearing as a policy option (Ghaziani et al., 2023: 67). For instance, Article 8.1(f) of the US Model BIT 2012 prohibits requirements "to transfer a particular technology, a production process, or other proprietary knowledge to a person in its territory". Some IIAs have specifically addressed local content requirements in the renewable energy sector. For example, the recent Free Trade Agreement

between the EU and Vietnam includes a chapter on “Non-tariff barriers to trade and investment in renewable energy generation”, which stipulates in its Article 7.4 that parties shall “(a) refrain from adopting measures providing for local content requirements or any of her offset affecting the other Party's products, service suppliers, investors or enterprises; (b) refrain from adopting measures requiring to form a partnership with local companies, unless those partnerships are deemed necessary for technical reasons and that Party can demonstrate those reasons upon request of the other Party”. Such pro-renewable energy provisions (*lex ferenda*) appear to be the right solution to overcome the challenges posed by performance requirements and create a level playing field for the foreign investors.

Last, but by no means least, it is crucial to recognise that investment incentive policies have two sides. The positive aspect is their equal imposition on both foreign and national investments. However, the negative and controversial aspect is the potential revocation of such policies. Various subsidies, government procurement practices, insurance policies, and mechanisms like FITs qualify as investment incentives; therefore, their revocation, even if not discriminatory against foreign investments, can seriously disrupt economic equilibrium (Dromgool, Enguix, 2016: 414). Such revocations may also breach the standard of Fair and Equitable Treatment (FET), as they undermine investors’ legitimate expectations and destabilise the business environment (Jha, 2012). This issue has been central to many recent renewable energy investment disputes (e.g., *The PV Investors v Spain (Award)*, 2020). In such cases, relying solely on NT is not only ineffective but might also adversely affect foreign investors’ interests. To alleviate similar concerns, many IIAs require parties to provide a stable investment environment or to cooperate in this regard (e.g., Political, Free Trade and Strategic Partnership Agreement between the UK and Ukraine, 2020: arts. 73 and 323; ECT, 1994: art. 10.1).

## **Conclusion**

The global drive for liberalisation has increasingly highlighted the importance of NT in both the pre-entry and post-entry phases of investment. Although NT

obligations have played a relatively bold role in protecting international renewable energy projects within the multilateral trading system, their contribution to safeguarding renewable energy investors' interests has been marginal, at least in investment arbitration. This is largely because international investment instruments have, to date, given minimal attention to the potential of NT, especially in sector-specific contexts, compared with their international trade counterparts.

Given the critical role of renewable energy in sustainable development and combating global warming, IIAs must address these shortcomings. Specifically, protecting intellectual property rights under IIAs is vital, given the rise in global research and patenting in renewable energy technologies. Equally important is the liberalisation of foreign investment flows, which can be advanced through tailored NT clauses.

Promisingly, agreements such as CETA and USMCA have introduced valuable pre-establishment NT obligations. Additionally, the prohibitions on performance requirements in the USMCA and the US Model BIT 2012 mark significant progress. Similarly, the EU–UK Trade and Cooperation Agreement's detailed provisions on taxation, subsidies, and government procurement are commendable for enhancing transparency and predictability for potential investors.

Despite these advances, most IIAs still lack NT clauses designed specifically to promote foreign investments, let alone those in renewable energy. They often take a superficial approach to investment promotion, failing to adopt an integrated strategy. Furthermore, most IIAs neither explicitly address renewable energies nor differentiate the energy sector from other industries, leaving associated products undistinguished from other goods and assets whatsoever. It is promising, however, that some recent IIAs, particularly those concluded by the EU (e.g., Free Trade Agreement between the EU and Vietnam), have begun to address the specific needs of the renewable energy sector and facilitate investment liberalisation in this area. However, the effectiveness of these initiatives and whether future IIAs will adopt similar approaches remain to be

seen. The complexities surrounding scope of “investment”, NT, performance requirements, government procurement, and other incentive policies necessitate that each component integrates into the broader legal framework, like pieces of a jigsaw puzzle, to deliver the desired outcomes. Therefore, it is imperative that future IIAs first and foremost adopt a comprehensive and multidimensional approach to NT of investments, and then tailor the way they promote and protect renewable energy investments in particular.

### References

1. Agreement between Italy and Morocco for the Promotion and Protection of Investment (18 July 1990). At: <https://investmentpolicy.unctad.org/international-investment-agreements/treaties/bit/2102/italy---morocco-bit-1990->.
2. Agreement between Japan and Georgia for the Liberalisation, Promotion and Protection of Investment (29 January 2021). At: <https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/6078/download>.
3. Agreement between The Government of Hong Kong Special Administrative Region of the People’s Republic of China and The United Arab Emirates for the Promotion and Reciprocal Protection of Investments (16 June 2019). At: <https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/5865/download>.
4. Agreement on Government Procurement (GPA) 1994. At: [https://www.wto.org/english/docs\\_e/legal\\_e/gpr-94\\_01\\_e.htm](https://www.wto.org/english/docs_e/legal_e/gpr-94_01_e.htm)
5. Agreement on Subsidies and Countervailing Measures (ASCM) 1994. At: [https://www.wto.org/english/docs\\_e/legal\\_e/24-scm.pdf](https://www.wto.org/english/docs_e/legal_e/24-scm.pdf)
6. Agreement on Trade-Related Investment Measures (TRIMs) 1994. At: [https://www.wto.org/english/docs\\_e/legal\\_e/18-trims.pdf](https://www.wto.org/english/docs_e/legal_e/18-trims.pdf)
7. Bian, C. (2023). Investment screening put to the test of the Covid-19 Pandemic: typology, legality and externality. *Asia Pacific Law Review*, 31(2), 380-401.

8. Bilateral Agreement between the UK and Colombia (17 March 2010). At: <https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/3253/download>.
9. Bonnitcha, J., Poulsen, L.N.S., & Waibel, M. (2017). *The Political Economy of the Investment Treaty Regime*. Oxford: Oxford University Press.
10. Chaisse, J. (2016). Renewables Re-energized? The Internationalization of Green Energy Investment Rules and Disputes. *World Energy Law & Business*, Vol. 9, 269-281.
11. Collins, D. (2023). *An Introduction to International Investment Law*. Cambridge: Cambridge University Press.
12. Comprehensive Economic and Trade Agreement between Canada, of the one part, and the European Union of the other part (CETA) 2016. At: [https://eur-lex.europa.eu/eli/agree\\_internation/2017/37/oj/eng](https://eur-lex.europa.eu/eli/agree_internation/2017/37/oj/eng).
13. Cozzi, P. (2012). *Assessing Reverse Auctions as a Policy Tool for Renewable Energy Deployment: Research paper No 007*. Medford: The Center for International Environment and Policy.
14. Crossley, P. (2019). *Renewable energy law- An International Assessment*. Cambridge: Cambridge University Press.
15. Dadashova, B., Cline, J., Li, X., Sanchez, A., Gurbuz, O., and Aldrete, R. (2020). *Potential Implications of USMCA on Energy and Transportation Sectors: Phase 1*. Texas: Center for International Intelligent Transportation Research.
16. De Mestral, A. (2015). Pre-Entry Obligations under International Law. In Marc Bungenberg et al. (Eds.), *International Investment Law: A Handbook*. Baden-Baden: Nomos Verlagsgesellschaft.
17. Dromgool, T., Enguix, D.Y. (2016). The Fair and Equitable Treatment Standard and Revocation of Feed in Tariffs-Foreign Renewable Energy Investments in Crisis-Struck Spain. In V. Mauerhofer (Ed.), *Legal Aspects of Sustainable Development*. Switzerland: Springer.
18. Energy Charter Treaty (ETC) 1994. At:

- <https://www.energycharter.org/process/energy-charter-treaty-1994/energy-charter-treaty/>.
19. EU - United Kingdom Trade and Cooperation Agreement (30 December 2020). At: [https://commission.europa.eu/strategy-and-policy/relations-united-kingdom/eu-uk-trade-and-cooperation-agreement\\_en](https://commission.europa.eu/strategy-and-policy/relations-united-kingdom/eu-uk-trade-and-cooperation-agreement_en)
  20. Fitz-Gerald, L., Curnow, P. (2008). Australian Case Study. In Leslie Parker et al. (Eds.), *From Debate to Design: Issues in Clean Energy and Climate Change Law and Policy*. New Haven: Yale School of Forestry & Environmental Studies Publications Series.
  21. Free Trade Agreement between the European Union and Vietnam (30 June 2019). At: <https://eur-lex.europa.eu/EN/legal-content/summary/free-trade-agreement-between-the-european-union-and-vietnam.html?fromSummary=07>.
  22. General Agreement on Tariffs and Trade (GATT) 1947. At: [https://www.wto.org/english/docs\\_e/legal\\_e/gatt47\\_e.htm](https://www.wto.org/english/docs_e/legal_e/gatt47_e.htm).
  23. General Agreement on Trade in Services (GATS) 1994. At: [https://www.wto.org/english/tratop\\_e/serv\\_e/gatsintr\\_e.htm](https://www.wto.org/english/tratop_e/serv_e/gatsintr_e.htm).
  24. Ghaziani, M.A., Ziaee, S.Y., and Fazaeli, M. (2023). Exploring the Nexus between Transfer of Technology Obligations and the Promotion of Foreign Investments in Renewable Energy. *Revista Quaestio Iuris*, Vol. 16(2), 847-869.
  25. Ghaziani, M.A., Fazaeli, M., Ghaziani, M.A., and Amin, H. (2023). Market Access Obligations and Foreign Investments in Renewable Energy: An Analysis of International Trade and Investment Law Instruments. *Indonesian Journal of International Law*, Vol. 21(1), 51-74.
  26. Ghaziani, M.A., Ghaziani, M.A. (2021). The Role Of Expropriation Clauses In Protection And Promotion Of Foreign Investments In Renewable Energy: An Essential But Overlooked Legal Consideration. *Indonesia Law Review*, Vol. 11(2), 191-215.
  27. Horn, H., Mavroidis, P.C. (2008). The Permissible Reach of National Environmental Policies. *Journal of World Trade*, Vol. 42, 1107-78.

28. Hufbauer, G.C., Schott, J.J., Cimino, C., Vieiro, M., and Wada, E. (2013). *Local Content Requirements: A Global Problem*. Washington DC: Peterson Institute for International Economics.
29. Interim Agreement Establishing an Economic Partnership Agreement between the UK and Cameroon (9 March 2021). At: [https://assets.publishing.service.gov.uk/media/607d7fdcd3bf7f400d3b8dee/MS\\_2.2021\\_UK\\_Cameroon\\_Interim\\_Agreement\\_Economic\\_Partnership.pdf](https://assets.publishing.service.gov.uk/media/607d7fdcd3bf7f400d3b8dee/MS_2.2021_UK_Cameroon_Interim_Agreement_Economic_Partnership.pdf).
30. Investment Cooperation and Facilitation Treaty between Brazil and India (25 January 2020). At: <https://investmentpolicy.unctad.org/international-investment-agreements/treaties/bilateralinvestment-treaties/4910/brazil--india-bit-2020->
31. IRENA. (2019). *Global Energy Transformation: A Roadmap to 2050*. Abu Dhabi: International Renewable Energy Agency.
32. Jha, V. (2012). Trends in Investor Claims Over Feed-in Tariffs for Renewable Energy. *IISD*, July 19, at: [www.iisd.org/itn/fr/2012/07/19/trends-in-investor-claims-over-feed-in-tariffs-for-renewable-energy/#\\_edn2](http://www.iisd.org/itn/fr/2012/07/19/trends-in-investor-claims-over-feed-in-tariffs-for-renewable-energy/#_edn2).
33. Judgment of the Court of 2 April 1998, C-213/96 Outokumpu Oy [1998] ECR I-1777.
34. IEA. (2013). *Trends 2013 in Photovoltaic Applications- Survey Report of Selected IEA Countries between 1992 and 2012, Photovoltaic Power Systems Programme: Report No T1-23*. Paris: International Energy Agency.
35. Komendantova, N., Schinkoa, T., and Patt, A. (2019). De-risking Policies as a Substantial Determinant of Climate Change Mitigation Costs in Developing Countries: Case study of the Middle East and North African Region. *Energy Policy*, Vol. 127, 404-411.
36. Kriebaum, U. (2013). Are Investment Treaty Standards Flexible Enough to Meet the Needs of Developing Countries?. In Freya Baetens (Ed.), *Investment Law within International Law*. Cambridge: Cambridge University Press.
37. Leal-Arcas, R., Nalule, V. (2021). Multilateral and Bilateral Energy

- Investment Treaties. In J. Chaisse, L. Choukroune, and S. Jusoh (Eds.), *Handbook of International Investment Law and Policy*. Singapore: Springer.
38. Muchlinski, P.T. (2000). The Rise and Fall of the Multilateral Agreement on Investment: Where Now?. *The International Lawyer*, Vol. 34(3), 1033-1053
39. North American Free Trade Agreement (17 December 1992).
40. OECD. (2015). *Green Finance and Investment: Overcoming Barriers to International Investment in Clean Energy*. Paris: OECD Publishing.
41. *Olin Holdings Limited v State of Libya (Final Award)* (ICC, 25 May 2018).
42. Ortino, F. (2019). *The Origin and Evolution of Investment Treaty Standards*. Oxford: Oxford University Press.
43. Paris Convention for the Protection of Industrial Property (20 March 1883).
44. Political, Free Trade and Strategic Partnership Agreement between the UK and Ukraine (8 October 2020). At: [https://assets.publishing.service.gov.uk/media/5fad3feed3bf7f037c19fbd9/C\\_S\\_Ukraine\\_1.2020\\_UK\\_Ukraine\\_Political\\_Free\\_Trade\\_Strat\\_Partner\\_Agreement.pdf](https://assets.publishing.service.gov.uk/media/5fad3feed3bf7f037c19fbd9/C_S_Ukraine_1.2020_UK_Ukraine_Political_Free_Trade_Strat_Partner_Agreement.pdf).
45. Qian, X., Ghaziani, M.A. (2024). The Relationship between Transparency Obligations and Foreign Investment in Renewable Energies: Realising the Potential Role of IIAs. *Energies*, Vol. 17(11), 1-17.
46. Regional Comprehensive Economic Partnership Agreement (15 November 2020) (RCEP). At: <https://investmentpolicy.unctad.org/international-investment-agreements/treaties/treaties-with-investmentprovisions/4935/rcep-2020->.
47. Reinisch, A. (2015). National Treatment. In M. Bungenberg et al. (Eds.), *International Investment Law: A Handbook*. Baden-Baden: Nomos Verlagsgesellschaft.
48. Renewables. (2020). Renewable energy patents “increase 28%”: Almost 21,000 clean power patents were filed in 2018/19 according to law firm EMW. At: <https://renews.biz/57607/renewable-energy-patents-increase-28/>.
49. Ruse-Khan, H.G. (2015). Investment Law and Intellectual Property Rights. In Marc Bungenberg et al. (Eds.), *International Investment Law: A*

*Handbook*. Baden-Baden: Nomos Verlagsgesellschaft.

50. Schefer, K.N. (2016). Climate Change, Trade, and Investment Law: What Difference Would a Real Responsibility to Protect Make?. In M. Matsushita, T.J. Schoenbaum (Eds.), *Emerging Issues in Sustainable Development: International Trade Law and Policy Relating to Natural Resources, Energy, and the Environment*. Japan: Springer.
51. Schill, S.W. (2009). *The Multilateralization of International Investment Law*. Cambridge: Cambridge University Press.
52. Shikher, S., Torsekar, M. (2019). *U.S.-Mexico-Canada Trade Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors*. Washington, DC: United States International Trade Commission.
53. Sornarajah, M. (2021). *The International Law on Foreign Investment*. Cambridge: Cambridge University Press.
54. Talus, K. (2016). *Introduction to EU Energy Law*. Oxford: Oxford University Press.
55. The ASEAN Comprehensive Investment Agreement (26 February 2009) (ACIA).
56. The Draft Convention on the Protection of Foreign Property, adopted by The Organisation for Economic Co-operation and Development on 12 October 1967.
57. The Framework Agreement on the ASEAN Investment Area (8 October 1998).
58. *The PV Investors v The Kingdom of Spain (Award)* (PCA, 28 February 2020).
59. The US Model Bilateral Investment Treaty, 2012.
60. Tomoko, Y. (2020). Procedural and Normative Competition between the WTO's Dispute Settlement and the Investor-State Arbitration: Focusing on the National Treatment Principle. *Public Policy Review*, Vol.16(5), 1-23.
61. Treaty between the United States of America and Argentina concerning the Reciprocal Encouragement and Protection of Investment (14 November 1991). At: <https://investmentpolicy.unctad.org/international-investment->

- agreements/treaty-files/127/download.
62. Treaty on the Functioning of the European Union (25 March 1957). At: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=legissum:4301854>
63. UNCTAD. (2010). *World Investment Report: Investing in a Low Carbon Economy*. Geneva: UNCTAD.
64. UNCTAD. (2025). International Investment Agreements Navigator. *Investment Policy Hub*, at: <https://investmentpolicy.unctad.org/international-investment-agreements>.
65. United States–Mexico–Canada Agreement (1 July 2020) (USMCA).
66. Vienna Convention of the Law of Treaties (23 May 1969).
67. Wilder Am, M., Drake, L. (2016). International Law and the Renewable Energy Sector. In C.P. Carlarne, K.R Gray, and R.G. Tarasofsky (Eds.), *The Oxford Handbook of International Climate Change Law*. Oxford: Oxford University Press.
68. Wilke, M. (2011). *Feed-in Tariffs for Renewable Energy and WTO Subsidy Rules: An Initial Legal Review*. Geneva: International Centre for Trade and Sustainable Development.
69. *William Ralph Clayton, William Douglas Clayton, Daniel Clayton and Bilcon of Delaware, Inc. v Government of Canada (Award on Damages)* (PCA, 10 January 2019).
70. WTO, *Canada - Certain Measures Affecting the Renewable Energy Generation Sector- Report of the Appellate Body* (6 May 2013) WT/DS412/AB/R.
71. WTO, *Canada - Measures Relating to the Feed-in Tariff Program- Report of the Appellate Body* (6 May 2013) WT/DS426/AB/R.
72. Ziegler, A.R. (2015). Investment Law in Conflict with WTO Law?. In Marc Bungenberg et al. (Eds.), *International Investment Law: A Handbook*. Baden-Baden: Nomos Verlagsgesellschaft.

