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# Energy Security, Energy Transition, and Foreign Investments: An Evolving Complex Relationship

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**Abstract:** Energy has historically enticed significant interest from foreign investors. Simultaneously, it has perpetually held a pivotal position in any nation's framework. Consequently, governments have long regarded energy security as a paramount concern, crucial for ensuring national stability. Energy security, simply put, is defined as "the availability of sufficient supplies at affordable prices." However, a more contemporary perspective also emphasizes the necessity for long-term sustainability in the supply. This perspective adds a new foundational element—sustainability—to the concept of energy security. Stemming from this premise, two phenomena in the energy sector emerge that could impact international foreign direct investment (FDI) flows. Firstly, the transition from hydrocarbons to renewable sources necessitates substantial investment, wherein foreign investments could play a pivotal role. Secondly, there is an increasing trend of States utilizing FDI for strategic objectives. The acquisition of strategic energy infrastructure by foreign entities is now perceived as a risk to the energy supply security of nations. Consequently, several States have bolstered their FDI screening mechanisms to assess potential impacts on supply security, infrastructure operation, and national security in general. These two aforementioned phenomena may sometimes conflict. This article aims to analyze the intricate relationship between energy security, energy transition, and foreign investments. The author posits that an overly broad interpretation of national security and the misuse of screening mechanisms could serve as instruments for shielding the domestic economy, potentially undermining the foreign investment legal framework. Such an approach in the energy sector could have a "chilling effect," leading to a reduction in FDI and impeding the energy transition or the attainment of other energy-related objectives. At the same time, a deep reform of the international investment regime is required, which should go through a modification of International Investment Agreements (IIAs) clauses but also through a more environmentally friendly approach by investment arbitral tribunals. It appears extremely difficult to find a balance between international investment law and environmental/climate change law. In this context, the Energy Charter Treaty (ECT), which has recently undergone a "modernization process," is assumed to be a test bench.

**Keywords:** energy; FDI; screening; SDGs; national security; energy security; energy transition; IIAs; ISDS; Energy Charter Treaty



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## 1. Preliminary Remarks: Energy and International FDI Flows

Energy has traditionally been a very attractive field for foreign investors; however, the forms of foreign direct investment (FDI) in the energy sector and their regulation have changed over time (Rajavuori and Huhta 2020). Originally, energy FDI involved mainly the exploration and production of hydrocarbon natural resources such as oil, hard coal, and natural gas and these were located principally in developing countries. In those years, FDI laws approved by host States aimed at guaranteeing their participation in the financial profits coming from the foreign investment without giving particular relevance to national security concerns. Since the 1970s, FDI flows have had substantial growth thanks to the liberalization and protection measures gradually introduced by States. Subsequently, in the 1990s, in many countries, especially those in Europe, FDI in the energy sector started

to be strongly encouraged due to the liberalization of energy markets and the partial privatization of national State-owned enterprises (SOEs). At that time, governments gave a prominent role to FDI for the liberalization of the markets and the achievement of energy supply security. Nevertheless, simultaneously, the so-called "golden share" and/or "golden power" laws began to be enacted, since host States wanted to keep a certain degree of control in the energy sector, though for reasons of industrial policy rather than of national security.

Currently, two phenomena are characterizing the energy sector that could impact international FDI flows.

First, the rising demand for energy worldwide and the heavy reliance of some countries on energy from imported sources have made the security of supply a core problem for each State. In this context, there is an increasing use of FDI for strategic objectives by several States, including China and Middle Eastern countries. This frequently occurs in infrastructure and technology assets relating to the energy sector. The acquisition by foreign entities of strategic energy infrastructure is now considered a risk for the security of energy supply of countries. As a result, in recent years, several countries have strengthened their FDI screening systems to evaluate the potential FDI impact on the security of supply and infrastructure operations, as well as, in general, on national security.

The second aspect that must be taken into account is that the transition from hydrocarbon to renewable sources requires a huge investment in new infrastructure to produce "green" electricity, hydrogen, or biofuels and to transport the energy to the areas of consumption; contemporaneously, important investments are necessary for the digitalization of existing energy generation, transportation, and consumption infrastructure. Foreign investments could give a fundamental contribution to the achievement of these goals.

The two above-mentioned phenomena could sometimes emerge in opposition.

This article aims at analyzing the complex relationship between energy security, energy transition, and foreign investments. Firstly, the concept of national security (with particular reference to energy security) will be initially considered, emphasizing its evolving nature and its possible repercussions on domestic policies towards foreign investments. It is evident that an overly expansive interpretation of national security and the abuse of screening mechanisms could become an instrument for the protection of the domestic economy and have a negative effect on the foreign investment legal framework, creating new barriers and reducing legal certainty for foreign investors. In the energy sector, this attitude could have a "chilling effect," determining a reduction in FDI and, as a result, hindering the energy transition or the achievement of other energy goals. Subsequently, considering the crucial role that FDI could play in achieving the Sustainable Development Goals (SDGs) outlined in the United Nations 2030 Agenda for Sustainable Development[1] and the commitments of the 2015 Paris Agreement,[2] the complex relationship between foreign investments and the energy transition will be examined by taking into consideration the relevant International Investment Agreements (IIAs) clauses and the use of investment arbitration in energy-related disputes. The author postulates the idea that a deep reform of the international investment regime is required and should go through a modification of IIAs clauses but also through a more environmentally friendly approach by investment arbitral tribunals. Furthermore, the establishment of a new framework where climate goals represent the foundations is recommended. In this context, the Energy Charter Treaty (ECT) is taken into consideration as a test bench, also evaluating the failure of its modernization process.

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[1] See the General Assembly Resolution, *Transforming Our World: The 2030 Agenda for Sustainable Development*, A/RES/70/1, 25 September 2015.

[2] The Paris Agreement was concluded among the States parties to the United Nations Framework Convention on Climate Change (UNFCCC) on 12 December 2015, at the end of the 21st Conference of the Parties (COP21) of the UNFCCC.

## 2. Energy Security as a Key Component of National Security

Energy has always played a key role for every country in economic, social, and political terms (Stavytskyy et al. 2018, pp. 217–38). Therefore, governments have traditionally considered the issue of energy security as a paramount concern since it directly correlates with ensuring national security.

National security is a dynamic and evolving concept.

In the international order established after World War II, States usually separated national security interests from economic issues. This was evident in trade and investment treaties, where often broad and flexible exceptions were included to exempt national security measures from the applicable regime, drawing a line between ordinary economic activity and security (Heath 2019–2020, p. 1025). Therefore, in the two-pole system, the concept of national security was essentially linked to the idea of a military conflict between the United States and the Soviet Union (Donohue 2011, pp. 1576–77, 1657–58).

Following the end of the Cold War, States began to consider new potential risks to national security, such as terrorism, transnational crime, infectious diseases, environmental degradation, climate change, and economic crises. This evolution gradually broadened the concept of national security and national interests beyond the previous adversarial paradigm of military conflict between superpowers (Accaoui Lorfing 2021, pp. 177–99). Over the years, the scope of this concept has expanded, encompassing not only military defense but also the safeguard of other public goals crucial for State safety or domestic welfare.

Nowadays, the concept of national security is no longer focused only on the *State* but also on its *society*, including new elements such as human rights, environmental protection, public health, and particularly economic considerations (Mauro 2024, pp. 200–4). Thus, the concept integrates the safeguarding of societal fundamental interests and key values, such as the quality of life, social welfare, economic prosperity, access to information resources, environmental health, public order, political stability, national integrity, and an adequate energy supply.[3]

Additionally, the health emergency situation caused by the pandemic has clearly highlighted that the concept of national security obliges each State not to consider only traditional strategic assets. COVID-19 has reintroduced the notion of *scarcity* into the inter-State relations that can be present in personal protective medical equipment, food, and delivery of essential goods or services. Accordingly, the pandemic has compelled governments to re-evaluate the companies of *essential interest* for the national community, such as enterprises operating in the health sector.

Finally, with the ongoing Russia–Ukraine conflict, the international community is witnessing a further destabilization of the international economic relations and a *weaponization* of oil and natural gas supplies.

[3] Recent States' practice corroborate the thesis of the existence of a wider concept of national security. It is well known, for instance, that various investment cases in which Argentina participated in the 2000s increased the likelihood that such non-military threats would imply security interests under economic agreements. At that time, investors challenged in arbitral tribunals under bilateral investment treaties (BITs) a series of emergency economic measures that Argentina took in response to the severe financial crisis in 2001 and 2002. Argentina has claimed on several occasions that even if those measures violated its obligations regarding the treatment of foreign investment, they were exempt from breach of international commitments and no compensation was due because all those measures fell under the clause "necessary for . . . the protection of its own essential security interests." See *CMS Gas Transmission Co. v Argentine Republic*, ICSID Case No. ARB/01/8, Award of 12 May 2005, paras. 344–52; *LG&E Energy Corp. v Argentine Republic*, ICSID Case No. ARB/02/1, Decision on Liability of 3 October 2006, paras. 217–19; *Enron Corp. v Argentine Republic*, ICSID Case No. ARB/01/3, Award of 22 May 2007, paras. 324–26; *Sempra Energy Int'l v Argentine Republic*, ICSID Case No. ARB/02/16, Award of 28 September 2007, para. 367; *Cont'l Casualty Co. v Argentine Republic*, ICSID Case No. ARB/03/9, Award of 5 September 2008, paras. 84–89; *El Paso Energy Int'l Corp. v Argentine Republic*, ICSID Case No. ARB/03/15, Award of 31 October 2011, paras. 563–73. Even though Argentina's defense was rarely accepted, almost all arbitral tribunals agreed that the economic crisis represented a State's "essential security interest," notwithstanding the threat presented no military aspect. On this topic, see (Heath 2019–2020, p. 1038; Kurtz 2010, pp. 330–33; Burke-White 2008, pp. 202–4).

Energy represents a key element for economic development of each State, being a fundamental component of national security and deeply influencing international relations of governments.

However, notwithstanding that energy security is a pivotal concept in international relations, many doubts exist about its precise content (Mauro 2022, p. 13 ff.; Marhold 2021a, pp. 240–64; Morgandi and Viñuales 2021, pp. 450–67; Szulecki 2018; Energy Charter Secretariat 2015, p. 10 ff.; Goldthau and Sovacool 2012, pp. 232–40; Yergin 2006, pp. 69–82).

There are two main schools of thought about the notion of energy security (Marhold 2021b, p. 149 ff). The first is more circumscribed, being focused on the technical issues regarding, inter alia, the energy infrastructure, demand and supply, energy mix, pricing, and varying types of energy consumers and producers (Energy Charter Secretariat 2015, p. 10). A second larger and less precise approach also takes into consideration the geo-political aspects concerning the impact of energy on national security (Energy Charter Secretariat 2015, p. 10).

In the past, the concept of energy security was mainly linked to the goals of decreasing dependence on other States and assuring the availability of primary energy sources. Now, even though the uninterrupted availability of affordable energy remains the key objective of energy security, there are new facets, new measures, and new challenges (such as the diversification of energy suppliers and geostrategic threats) to be taken into account when considering this notion. Therefore, this is a broad and complex concept that presents several practical and political implications.

It should be added that, according to a more recent orientation, the supply of energy also has to be *sustainable* in the long term.[4] This means that energy security should be considered in a wider perspective, including economic and environmental aspects. Hence, this notion is linked to the concept of the so-called "energy trilemma" proposed by the World Energy Council (World Energy Council 2012) and founded on a balanced trade-off among three main energy goals, i.e., energy security, economic competitiveness, and environmental sustainability (Ang et al. 2015, p. 1090).

According to this approach a new fundamental dimension, that of sustainability, is introduced into the concept of energy security, as well as in international energy relations. Indeed, sustainable energy transformation and green investments are more and more frequently included in the concept of energy security covered by national security strategies (Lis 2023, p. 83).

Consequently, the perspective of energy security varies depending on the timeframe considered. In the short term, the ability of a system to respond effectively to sudden changes in supply and demand is crucial. Conversely, in the long term, it becomes imperative to prioritize investments that align with sustainable development needs (IEA 2016, p. 86; Energy Charter Secretariat 2015, p. 10).

Speaking strictly from a legal standpoint, it is essential to note that there is currently no universally accepted definition of the concept of energy security in international law, nor does European Union (EU) law provide a specific definition.[5] A clear definition of energy security is lacking, for instance, in the Agreement on an International Energy Programme,[6] which is the founding treaty of the International Energy Agency (IEA), the international organization established following the 1970s oil crises to balance the interests of energy

[4] In a nutshell, energy security is linked to a sustainable energy supply at our disposal for the near and the distant future. This concept is also in agreement with Goal 7 (Ensure Access to Affordable, Reliable, Sustainable and Modern Energy for All) of the United Nations SDGs, which foresees accessibility to affordable, reliable, sustainable, and modern energy for all (see General Assembly Resolution *Transforming Our World: The 2030 Agenda for Sustainable Development*, A/RES/70/1). The expression "four As" of energy security is sometimes used when referring to the availability, accessibility, affordability, and acceptability of energy.

[5] On this aspect, see European Commission, *Commission Staff Working Document, In-depth Study of European Energy Security*, SWD (2014) 330 final/3, 2 July 2014, p. 166, accompanying document Communication from the Commission to the European Parliament and the Council, *European Energy Security Strategy*, COM (2014) 330 final.

[6] The Agreement on an International Energy Programme was signed on 18 November 1974 and entered into force on 19 January 1976.

importing and exporting countries. However, this Agreement underlines the importance of preventing "supply emergencies" and recalls the special responsibility of each government regarding energy supply.[7] Subsequently, the IEA has proposed a very large concept of energy security, attributing the following meaning to this notion: "the uninterrupted availability of energy sources at an affordable price (IEA 2014, p. 13)." The United Nations Development Programme (UNDP) has tried to specify the concept, defining "energy supply security" as "the continuous availability of energy in varied forms, in sufficient quantities, and at reasonable prices." (UNDP 2000, p. 112).

In summary, energy security can be simply defined as "the availability of sufficient supplies at affordable prices," (Yergin 2006, pp. 70–71) which depends on the physical dimension, linked to the necessity to protect energy assets, infrastructure, and supply routes; the accessibility to energy; the regulatory framework (i.e., to guarantee a system of governance of energy supply and demand at national and global levels); and the promotion of investment for long-term energy security. Thus, energy security implies ensuring a reliable supply that is both accessible and affordable.

In today's international society, the balance between the realms of economy and security has undergone significant changes (Heath 2019, p. 1431 ff.; Ma 2019, p. 899 ff.; Robert et al. 2019, p. 655 ff.; Blackwill and Harris 2016). There is now a greater convergence between security and economic issues, with increased attention to weighing up the economic benefits versus the security implications of foreign investments. Moreover, there is a heightened focus on security risks stemming from interdependence, which could weaken State control, self-sufficiency, and resilience.

In the energy sector, the convergence between the sphere of security and that of economy is even more pronounced, significantly affecting States' attitude towards FDI, both inward and outward. The achievement of energy security has now become a key aspect of the foreign and defense policy of the States. At the same time, the globalization of energy as an industry and the increasing interdependence of several countries in this field emphasize the difficulties in guaranteeing national energy security (Dźwigoł et al. 2019, pp. 307–17).

Given that energy has always been a very attractive sector for foreign investors and thanks to its implications for national security, States have usually adopted domestic legislative measures to regulate FDI in this field. For instance, governments have traditionally employed State ownership, ownership restrictions, and national security screening to limit foreign investors' acquisitions in energy production, storage, and distribution facilities (Kudrle 1993, pp. 142–67).

Currently, the majority of screening systems consider energy as a covered sector (Fleischmann et al. 2022; Wehrlé and Pohl 2016).[8] In the past, mainly FDI into the exploration, production, transmission, and supply of energy was subject to scrutiny by the host State based on national or public security concerns. Now, with the expanding definitions of "critical infrastructures" (including the digitalization of energy supply) and "critical technologies" (government control over the development and application of new energy technologies), as well as the increasing focus on data and data-driven technologies, investment screening mechanisms encompass a broader range of companies and activities. Additionally, energy investments may face prohibitions or be subjected to mitigation measures.

National laws can prohibit or limit (in terms of percentage shareholding) FDI in natural gas or electricity infrastructure, reserve ownership or control of certain infrastructure to the State, or restrain the ability of private investors to hold shares in such infrastructure.[9] In addition, under the "golden share" or "golden power" regime some governments, as minority shareholders in energy infrastructure and supply companies, could veto certain

[7] Preamble of the Agreement on an International Energy Programme.

[8] See also European Commission, *Review of National Rules for the Protection of Infrastructures Relevant for Security of Supply*, Final Report, 18 February 2018, p. 13 ff.

[9] Ibid., p. 27 ff.

measures pertaining to investment, such as share acquisitions or asset disposals.[10] Moreover, States can nationalize companies and assets to guarantee the security of supply.[11] Finally, FDI control also can be contemplated by rules concerning, in general, energy supply and transportation markets.[12]

The security implications of energy investment screening could generate situations of conflict between diverging interests and opposing goals (Goldthau and Sitter 2014, pp. 1452–72). Indeed, on the one hand, screening mechanisms can be employed to guarantee energy security by limiting risky transactions; on the other hand, the security implications of investment screening in the energy sector could involve not only energy security in a specific sense but also national or public security, and the screening policy could have a chilling effect on foreign investments needed to finance the energy transition and/or other energy goals.[13]

However, given the dimension of sustainability that now marks the concept of energy security, screening could represent also a tool for States to impede investments that are not climate-aligned, such as those in oil and gas exploration or extraction, allowing governments to include climate considerations into the investment assessment process (Akwii et al. 2024, pp. 12–15).

## 3. Climate Change and Energy Transition: The Role of FDI

As previously mentioned, the issue of energy security has more recently taken on a new dimension that is closely tied to the impacts of energy production and consumption on climate change. Over the past decades, there have been significant increases in both energy consumption and greenhouse gas emissions, which can no longer be overlooked. This shift in focus means that attention is now not only directed towards securing energy provision but also towards increasing diversification and mitigating the adverse effects of energy consumption on the environment. Consequently, there is a growing need to incorporate a "sustainability component" into international energy relations, aligning closely with the international community's priority of combating climate change.

Since the 1970s, growing awareness of the risks associated with climate change has spurred the adoption of numerous international legal instruments—both binding and non-binding—aimed at implementing specific measures to enhance environmental protection and mitigate global warming, in particular by limiting greenhouse gas emissions into the atmosphere. This process culminated in the Paris Agreement of 2015, a landmark development in the international legal framework on climate change. The Agreement, building upon the foundation laid by the UNFCCC in 1992,[14] requires Contracting Parties

[10] Ibid., p. 31 ff.

[11] Ibid., p. 32 f.

[12] For instance, the EU Electricity Directive (Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 Concerning Common Rules for the Internal Market in Electricity and Repealing Directive 2003/54/EC) and the EU Natural Gas Directive (Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 Concerning Common Rules for the Internal Market in Natural Gas and Repealing Directive 2003/55/EC) encompass rules regarding the certification of network operators that are controlled by persons from a third country outside the EU or the European Economic Area (EEA). In this context, national authorities also have to evaluate whether granting the certification can create risks for the security of energy supply of the Member State and the Community

[13] For instance, a State could ban a transaction due to national security reasons but, at the same time, this decision could reduce the accessibility to affordable energy. A similar situation occurred in the case concerning the dispute between Ralls Corporation and the United States, in which a Chinese investment into new generation capacity was blocked on the basis of national security concerns due to the vicinity of the project to military installations. This illustrates that the notion of security includes not only energy security in the strict sense but also other security concerns connected with the energy sector in the context of investment screening. Each State must face these energy-related security concerns to ensure the proper functioning of its energy sector. On the mentioned case, see (Zucker and Hari 2014, pp. 44–46).

[14] The UNFCCC was approved on the occasion of the United Nations Conference on Environment and Development in Rio de Janeiro and opened for signature on 4 June 1992.

to limit the increase in global temperature to below 2 degrees Celsius, with a preferred target of 1.5 degrees Celsius, compared to pre-industrial levels.[15]

A few months before the adoption of the Paris Agreement, the Members of the United Nations unanimously adopted the 2030 Agenda for Sustainable Development which includes, among the 17 SDGs to be achieved by 2030, access to reliable, sustainable, and modern economic energy systems,[16] as well as the promotion of actions, at all levels, to combat climate change.[17]

More recently, in 2021, during COP26,[18] new commitments were made in this sector, among which phasing out coal, stopping new drilling for gas and oil reserves with the goal of eliminating the use of these energy sources, and a vow to limit global methane emissions,[19] which could have impacts on investments in the domestic energy field.

Subsequently, at the end of COP28, the first global stocktake was approved,[20] which contains commitments on fossil fuels and renewables, representing a major outcome of the Conference. This stocktake encompasses various aspects under negotiation and can be used by States to formulate more effective climate action plans by 2025. It reiterates the need for a 43% reduction in global greenhouse gas emissions by 2030 compared to 2019 levels to limit global warming to 1.5 °C.[21] Furthermore, it emphasizes that parties must triple renewable energy capacity and double energy efficiency improvements by 2030 to meet their Paris Agreement commitments. Additionally, the stocktake underscores the importance of promoting the energy transition, including efforts to phase down unabated coal power and abandon inefficient fossil fuel subsidies. Developed countries are expected to continue playing a leading role in this regard.

To conclude, the seriousness of the phenomenon of climate change (in general, see, Maljean-Dubois et al. 2022, pp. 737–45). has made the energy transition a key objective of the international community. It is quite evident that the transition from hydrocarbons to renewable sources requires a huge investment in energy research and development, supply and storage, transit, and infrastructure, both public and private, also from abroad,[22] as clearly indicated in the Agenda for Sustainable Development itself.[23]

Nevertheless, it is important to note that despite the significant potential for foreign investments to contribute—both in terms of capital and technology—to the achievement of

15 See Article 2 of the Paris Agreement.

16 See Objective 7.

17 See Objective 13.

18 The 26th Conference of the Parties (COP26) of the UNFCCC took place from 31 October to 12 November 2021, in Glasgow.

19 The Glasgow Climate Pact required the parties to accelerate "efforts towards the phasedown of unabated coal power and phase-out of inefficient fossil fuel subsidies" and pushed developed countries to provide enhanced support, including through financial resources, technology transfer, and capacity-building, to developing countries in accordance with the obligations assumed under the UNFCCC (see, Glasgow Climate Pact, decision -/CP.26, 13 November 2021, paragraphs 20 and 22). Furthermore, the Global Coal to Clean Power Transition statement was signed by 45 States and the EU, with some of them undertaking to "transition away from unabated coal power generation."

20 The global stocktake has been established under Article 14(1) of the 2015 Paris Agreement "to assess the collective progress towards achieving the purpose of this Agreement and its long-term goals." Therefore, this is a process for countries and stakeholders to evaluate progress in the achievement of the commitments assumed.

21 Additionally, the Sharm el-Sheikh Implementation Plan adopted during the 27th Conference of the Parties (COP27) of the UNFCCC stated that "limiting global warming to 1.5 °C requires rapid, deep and sustained reductions in global greenhouse gas emissions of 43 percent by 2030 relative to the 2019 level." See Decision -/CMA.4, Sharm el-Sheikh Implementation Plan, 20 November 2022, para. 15. The COP27 took place from 6 November to 20 November 2022, in Sharm el-Sheikh.

22 See in this regard (UNCTAD 2014, p. 140), which estimated, at the time, an annual investment gap of approximately USD 2.5 trillion in developing countries alone.

23 See Objective 10.b, according to which there is a need to promote "financial flows, including foreign direct investment, to States where the need is greatest," and Objective 17.5, according to which it is necessary to "adopt and implement investment promotion regimes for least developed countries." According to the International Renewable Energy Agency (IRENA) USD 131 trillion will be necessary for energy transition until 2050, which corresponds to USD 4.4 trillion on average every year (IRENA 2021). Similarly, the International Energy Agency (IEA) affirms in its report *Net Zero by 2050: A Roadmap for the Global Energy Sector*, that its net-zero pathway requires an annual investment of USD 5 trillion by 2030 (IEA 2021, p. 22).

the SDGs and other ambitious environmental targets set by the international community (Vasani and Allen 2020, pp. 1–39), there exists a vast network of international treaties aimed at promoting and protecting these investments whose application could potentially have a negative impact on the fight against climate change.[24]

International Investment Agreements (IIAs) typically include rules designed to protect the nationals of a Contracting Party who invest in the territory of another Contracting Party (or multiple parties, if the agreement is multilateral). On the contrary, most of these IIAs lack provisions related to the safeguard of the environment. As it has actually happened, the substantive and procedural rules contained within these treaties may discourage host States from adopting measures aimed at environmental protection (Tienhaara 2018, pp. 229–50), thereby hindering efforts to combat climate change.

## 4. The Impact of International Investment Agreements on the Energy Transition

As we mentioned above, although FDI can play a fundamental role for the safeguard of the environment, the enforcement of IIAs could have a negative impact on the energy transition and, consequently, on the fight against climate change and, in general, on environmental protection.

IIAs contain rules aimed at protecting, both at a substantive and procedural level, the nationals of a Contracting Party who invest in the territory of the other Contracting Party (or of the other Contracting Parties). These rules, especially those of a procedural nature contemplating investment arbitration, may discourage the adoption of environmental and energy measures by the host State aimed at opposing climate change.

Therefore, on one hand, IIAs have long been seen as a fundamental tool for attracting foreign investment; on the other hand, these treaties can have a chilling effect on a government's ability to adopt environmental and energy regulations.[25]

Indeed, most of the oldest agreements do not contain ad hoc provisions on environmental protection or clauses directed at promoting and protecting low-carbon investment,[26] even though the new generation treaties normally include provisions or chapters devoted to sustainable development and/or climate change (de Stefano 2023, pp. 256–62).

Nevertheless, although newer IIAs, such as the Morocco–Nigeria BIT[27] or the Singapore–Indonesia BIT,[28] typically acknowledge explicit States' rights to regulate and incorporate specific articles pertaining to the environment, climate action, and sustainable development, thereby permitting States to enact environmental measures without the threat of being brought before international arbitration proceedings,[29] they generally lack detailed provisions designed to facilitate sustainable investments, to promote technology transfer from fossil fuel sources to clean energies, and to help the energy transition (UNCTAD 2023a, p. 11).

Currently, only a few new agreements (often broader economic agreements with investment provisions) address aspects related to the energy transition. These treaties may include general clauses aimed at promoting sustainable investment and cooperation on

[24] See in this regard *Report of the UN Secretary-General, International Financial System and Development*, A/73/280, 31 July 2018, para. 62.

[25] On this topic, see *Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, David R. Boyd. Paying Polluters: the Catastrophic Consequences of Investor-State Dispute Settlement for Climate and Environment Action and Human Rights*, A/78/168, 13 June 2023.

[26] According to UNCTAD, some 3400 IIAs were concluded between 1959 and 2011, which represent over 85% of IIAs ever signed; about 2300 of these old-generation IIAs are still in force. These treaties do not safeguard States' regulatory right to adopt measures for a sustainable energy transition, nor therein contained substantive treatment standards are formulated in a specific and detailed way, and there are few exceptions or safeguards. Most of ISDS claims could be under these old-generation IIAs, which significantly outnumber the newest IIAs (see UNCTAD 2018, p. 72).

[27] See Article 8(2) of the Morocco–Nigeria BIT, according to which investors have the obligation not circumvent international environmental law duties.

[28] See Article 11 of the Singapore–Indonesia BIT that expressly grants the host State the right to regulate for environmental objectives. See also the Netherlands Model BIT of 22 March 2019.

[29] These IIAs include more detailed substantive provisions and procedural clauses guaranteeing a narrower access to ISDS. See (UNCTAD 2020, p. 112 ff).

climate action, as well as recognizing the right to regulate for climate change and the need to implement climate action treaties. These provisions may range from broad preambular references to more specific measures aimed at supporting the energy transition.

An important example is the African Continental Free Trade Area (AfCFTA) Investment Protocol, which explicitly includes clauses to promote and facilitate renewable energy investment.[30] Similarly, the Japan–United Kingdom Comprehensive Economic Partnership Agreement (CEPA) contains clauses aimed at promoting investments important for climate change mitigation, such as investments related to renewable energy and energy-efficient goods and services.[31] Additionally, the Moldova–United Kingdom Strategic Partnership, Trade and Cooperation Agreement incorporates provisions that promote the diffusion of safe and sustainable low-carbon and adaptation technologies.[32] The issue of the energy transition is also considered in the Investment Cooperation and Facilitation Agreements concluded by Brazil,[33] as well as in the recent Angola–EU Sustainable Investment Facilitation Agreement (SIFA).[34] Furthermore, it is worth mentioning the United States–Mexico–Canada Agreement (USMCA), which also contemplates ad hoc procedures and mechanisms to implement States' climate action policies through inter-State cooperation, such as joint committees, joint dialogues, climate action consultations and panels of experts.[35] Moreover, therein the Contracting Parties recognize that it is inappropriate to encourage trade or investment by relaxing environmental law protection.[36]

As regards BITs specifically, the 2019 Netherlands Model BIT promotes foreign investment that aligns with the imperatives of the Paris Agreement.[37]

However, most treaties that encompass clauses concerning sustainable development, environmental protection, and investment promotion and facilitation, as well as corporate social responsibility,[38] do not normally refer to energy investment as such.

Indeed, the goal of the energy transition requires a greater effort to reform the regime of IIAs with the aim of discouraging investments in fossil fuels while simultaneously promoting sustainable energy investments. Thus, even though in principle the energy transition could be favored by FDI, as a matter of fact, this requires a deep change in the current international legal framework concerning FDI, demanding a renewed pro-environmental endeavor from both States and international arbitrators. For this aim, several solutions can be adopted. Firstly, IIAs should incorporate more specific and proactive promotion and facilitation clauses for sustainable investment.

In addition, provisions on corporate social responsibility and investor duties should be included in new treaties.

At the same time, technology transfer and associated know-how, which are crucial for supporting the transition towards greener energies, especially in certain countries, should be foreseen.

Furthermore, States could protect their public policies for climate not only by clearly affirming the right to regulate but also through the inclusion of exceptions provisions in their IIAs based on Article XX of the World Trade Organization (WTO)'s General Agreement

[30] The draft Investment Protocol was adopted by the Heads of State and Government during the Assembly of the African Union on 19 February 2023. Negotiations on the Investment Dispute Settlement Annex to the Protocol are ongoing.

[31] CEPA was signed on 23 October 2020.

[32] The Agreement was signed on 24 December 2020.

[33] In 2015, Brazil issued this new model of Cooperation and Facilitation Investment Agreement (CFIA), which differs from traditional BITs.

[34] SIFA was signed on 17 November 2023.

[35] USMCA was signed on 30 November 2018.

[36] Article 24.4.3 of the USMCA.

[37] See Article 6(6) of the Netherlands Model BIT of 22 March 2019.

[38] On clauses concerning corporate social responsibility which are included in IIAs, see (Shadikhodjaev 2024, pp. 196–200).

on Tariffs and Trade 1994 (GATT) and Article XIV of the General Agreement on Trade in Services (GATS).[39]

Finally, since the treatment of fossil fuels is a determining test for judging the climate policies of countries, governments not only should propose a carve-out that removes measures to address climate change from the scope of IIAs or, at least, from Investor–State dispute settlement (ISDS) (Paine and Sheargold 2023, pp. 285–304) but also should exclude fossil fuel investment from the scope of investment protection benefits. In particular, the provisions on ISDS should not be applied to fossil fuel investment. In this case, there could be a conversion from ISDS to State-to-State dispute settlement (SSDS) for fossil fuel claims. Recent side letters and agreements between governments to multilateral treaties follow this approach.[40] For instance, in the context of the USMCA[41], the Parties have foreseen a shift from ISDS to SSDS, adopting a new investment chapter (i.e., Chapter 14) that does not contemplate ISDS or dispute settlement. Therefore, disputes under this chapter are subject to the SSDS provisions included in Chapter 31 applicable generally to the agreement.

Alternatively, together with the deletion of ISDS for fossil fuel claims, specific SSDS procedures could be introduced. For instance, this path has been followed in the Brazil–India Investment Cooperation and Facilitation Treaty.[42]

Finally, the scope of benefits for fossil fuel investment could be reduced and a certificate of approval for ISDS benefits could be required. In this hypothesis, Contracting Parties should indicate provisions that may be subject to an ISDS claim by a fossil fuel investor (for example, clauses concerning national treatment, most-favored nation treatment, and direct expropriation). Furthermore, Contracting Parties could specify that such claims may only be filed if the fossil fuel investor has obtained a certificate of approval of protection from the host State and, possibly, from the home State. Indeed, the latter solution recognizes the climate policy responsibilities of all parties to an IIA that guarantee benefits to fossil fuel investment.

From a procedural point of view, consultations between environment ministries and the possibility of SSDS could be foreseen.

With all of that said, it remains to be seen if specific and more detailed clauses in new IIAs can represent a shield to allow States to adopt measures for the mitigation or adaptation to climate change and, in general, initiatives to protect the environment without the risk of incurring investment arbitrations and of paying high compensations.

Indeed, ISDS clauses included in IIAs should be better defined in order to overcome the limitations of investment arbitration, such as the lack of transparency, consistency, predictability, and impartiality in the arbitral proceedings, especially considering the presence in these treaties of substantive protection clauses that contain vague and too far-reaching concepts causing legal uncertainty and potential misuse.[43] However, a reform is required only not from a procedural point of view but also from a substantial point of view, since at the moment, investment arbitration is totally unfit to devote proper attention to climate change issues (Van Harten and Yilmaz Vastardis 2023, pp. 363–71).

In conclusion, while in the past, the relevance of foreign investments was strictly linked to their contribution to the creation of jobs and wealth in the host country, nowadays, the conservation of natural resources, environmental protection, and social well-being are considered inalienable goals. In this context, foreign investments have a more demanding role, since they have to be consistent with the abovementioned goals (UNCTAD 2018).

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[39] For example, see Article 18 of the Australia–Hong Kong Investment Agreement signed on 26 March 2019; Article 14.15 of the Australia–Japan Agreement for an Economic Partnership (EPA) signed on 8 July 2014; Article 15.1 of the Colombia–Japan BIT signed on 12 September 2011.

[40] For example, Chile and New Zealand exchanged letters on 17 February 2023 excluding ISDS from the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). CPTPP was signed on 8 March 2018.

[41] See note 35.

[42] See Article 18 of the Brazil–India Investment Cooperation and Facilitation Treaty signed on 25 January 2020.

[43] On investment arbitration reform, see Marisi (2023).

## 5. The Investment Arbitration and the Energy Transition

In recent years, climate change-related disputes have become a common phenomenon at both domestic and international levels (Levine and Swan 2021). In particular, States have had to cope with high-cost international arbitrations for having introduced rules and procedures for the protection of the environment that have had negative consequences on foreign investments.[44] As affirmed in the 2022 Intergovernmental Panel on Climate Change (IPCC) report, there is now a concrete risk that ISDS mechanisms will be used to challenge climate policies (IPCC 2022, p. 1506). This circumstance raises several concerns among host States, and the fear of facing arbitration proceedings could deter these States (Viñuales and Langer 2011, pp. 171–91; Werksman et al. 2003, pp. 59–86), effectively discouraging the implementation of efficient national environmental policies.

Indeed, numerous investment arbitrations have involved the energy sector (UNCTAD 2022), impacting a sustainable energy transition, given that the IIA regime has allowed claims to be pursued in response to both fossil fuel phase-outs and policies favoring investment in renewable energy.

According to UNCTAD data, fossil fuel companies have frequently resorted to investment arbitration, initiating over 15% (219) of all known treaty-based cases against different State conducts (UNCTAD 2023a, p. 12).

Climate measures affecting foreign investments, such as the prohibition of certain activities, the imposition of energy standards, and the deprivation of rights for investors in carbon-intensive industries (Brauch et al. 2019, pp. 7–35; Lobel and Fermeglia 2018, pp. 945–76), have been considered by arbitral tribunals in investment arbitrations.[45]

For instance, in December 2019, the Netherlands approved a law aimed at banning the production of electricity from coal by 2030, requiring the closure of coal-fired power plants.[46] The German company RWE, operating in the fossil energy sector, considered the Dutch Government's decision as expropriation. After refusing the compensation offered by the State, RWE submitted a request for arbitration to ICSID on 2 February 2021.[47]

Similarly, the German company Uniper threatened the Dutch Government with international arbitration under the Energy Charter Treaty (ECT). When no amicable solution was reached, Uniper initiated an ICSID proceeding on 30 April 2021.[48]

In another case, in May 2017, the British oil and gas company Rockhopper turned to international arbitration against the Italian government.[49] This followed Italy's refusal in February 2016 to grant Rockhopper a concession for oil drilling in the Ombrina Mare field, located approximately 4 miles off the Italian coast, since a general ban on oil and gas exploration and extraction within 12 miles of the coast had been introduced by the State.[50]

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[44] This has happened on numerous occasions. See for example *Compañía del Desarrollo de Santa Elena SA v Costa Rica*, ICSID Case No. ARB/96/1, Award of 17 February 2000; *Metalclad Corp. v United Mexican States*, ICSID Case No. ARB (AF)/97/1, Award of 30 August 2000; *SD Myers, Inc. v Canada*, Partial Award of 13 November 2000; *Methanex Corporation v United States of America*, Award of 3 August 2005; *MTD Equity Sdn. Bhd. & MTD Chile SA v Chile*, ICSID Case No. ARB/01/7, Decision on Annulment of 21 March 2007; *Biwater Gauff (Tanzania) Ltd. v United Republic of Tanzania*, ICSID Case No. ARB/05/22, Award of 24 July 2008; *Glamis Gold Ltd. v United States of America*, UNCITRAL, Award of 8 June 2009; *Chemtura Corporation v Government of Canada* (formerly *Crompton Corporation v Government of Canada*), UNCITRAL, Award of 2 August 2010; and, as a more recent example, *Eco Oro Minerals Corp. v Republic of Colombia*, ICSID Case No. ARB/16/41, Decision on Jurisdiction, Liability and Directions on Quantum of 9 September 2021.

[45] According to Viñuales, 117 investment disputes with environmental elements were filed between 1970 and 2015 (Viñuales 2019, pp. 12–37).

[46] See https://wetten.overheid.nl, accessed on 18 April 2024.

[47] See *RWE AG and RWE Eemshaven Holding II BV v Kingdom of the Netherlands*, ICSID Case No. ARB/21/4.

[48] See *Uniper SE, Uniper Benelux Holding BV and Uniper Benelux NV v Kingdom of the Netherlands*, ICSID Case No. ARB/21/22. See in this regard (Niemelä et al. 2020).

[49] See *Rockhopper Exploration Plc, Rockhopper Italia SpA and Rockhopper Mediterranean Ltd. v Italian Republic*, ICSID Case No. ARB/17/14, notice of arbitration of 14 April 2017. In June 2019, the ICSID tribunal rejected the Italian State's request for the suspension of arbitration and the jurisdictional objections relating to intra-EU cases (see the decision on the intra-EU jurisdictional objection of 29 June 2019. See (Di Bella and Gálvez 2019) on the case.

[50] See Law of 28 December 2015, no. 208, *Disposizioni per la formazione del bilancio annuale e pluriennale dello Stato (legge di stabilità 2016)*, 15G00222.

In August 2022, the ICSID tribunal ordered Italy to pay over €190 million, plus interest and costs, to Rockhopper for violating its obligations under the ECT.[51]

However, not only fossil fuels investors but also companies that invest in renewable energies habitually use investment arbitration, together representing about 25% of total ISDS cases. It is worth mentioning also that the challenged measures were introduced by both developed and developing countries.

There were at least 119 ISDS proceedings involving the renewable energy sector. These cases primarily revolved around domestic decisions to reduce subsidies and other financial incentives that were initially implemented to attract investments in renewable energy (Timofeyev et al. 2020, p. 45 ff). According to the Energy Charter Secretariat, 58% of arbitration cases under the ECT have been to protect investments in renewable energies.[52] These cases mainly involved the Czech Republic, Italy, and Spain.

The present international legal climate change regime does not yet foresee specific dispute resolution mechanisms. This means that investment arbitration could play a pivotal role in the settlement of climate change disputes (Vadi 2015, p. 1317). Indeed, on some occasions, ISDS has proven to be a valuable tool in protecting renewables. For instance, the modification of subsidy regime in Spain determined numerous renewable energy investment treaty disputes arbitrated against this State, which was forced to pay high sums to the claimants. Following these events, Spain has reintroduced incentives for the renewable energy sector for investors who withdrew pending arbitral or judicial proceedings (Pérez-Salido 2019). This demonstrates that the international investment law does not always represent an obstacle to the energy transition and that, on the contrary, the IIA regime can be reformed so as to enable it to favor the energy transition by simultaneously protecting foreign investment and applying climate change rules.

The recent investment disputes concerning the cutting or rolling-back of renewable energy benefits also indicate that more flexibility is required in domestic legal frameworks. Indeed, unexpected regulatory changes could erode investor confidence and compromise also green investments. At the same time, arbitral decisions denying regulatory flexibility could dissuade the affected host States from guaranteeing new support measures in clean energy.

In conclusion, probably, investment tribunals are not the best forum to settle climate-related disputes, due to their limited mandate and the scarce sensitivity towards environmental issues shown by arbitrators in the past.[53] Nevertheless, international investment arbitration could give its contribution to combat the phenomenon of climate change by allowing an interpretation of investment rules in accordance with climate concerns (Vadi 2015, pp. 1345–50) and, consequently, by fostering compliance with climate change policy objectives (Boute 2012, pp. 613–64).

## 6. The ECT: A Good Test Bench

As in other sectors, most energy-related ISDS cases were founded on old-generation IIAs. In the last few years, for instance, the majority of investment arbitrations have been based on the ECT,[54] which could play a fundamental role in the energy transition (Mauro Forthcoming).

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[51] *Rockhopper Italia S.p.A., Rockhopper Mediterranean Ltd., and Rockhopper Exploration Plc v Italian Republic*, ICSID Case No. ARB/17/14, Award of 23 August 2022, para. 335. On 28 October 2022, Italy submitted an application to the ICSID asking for the annulment of the Award pursuant to Article 52 of the ICSID Convention. Furthermore, the Italian government requested a provisional stay of the enforcement of the Award under Article 52(5) of the ICSID Convention.

[52] According to the ECT Secretariat, as of 1 December 2023, 162 investment arbitration proceedings were instituted under the ECT. See ECT Secretariat, Statistics of ECT Cases (as of 1 December 2023).

[53] On the little attention of investment tribunals to environmental concerns and international environmental obligations, see (Frosch and Giemza 2023, pp. 12–16).

[54] In 2022, the ECT was the most frequently invoked IIA as the basis for investment arbitrations: 10 cases were brought under this Agreement. See (UNCTAD 2023b, p. 56). In 2023, 5 cases were based on this treaty. See (UNCTAD 2024, p. 31).

The ECT was concluded in 1994. Originally, it represented a tool for capitalist States to ensure access to the energy market in the former Soviet Union and Eastern European countries. It aimed to create a favorable environment for investors during a period of great uncertainty caused by the transition from State socialism to a market economy.

Part III of this ample Treaty is specifically dedicated to the protection and promotion of foreign investments, taking up the content of most of the IIAs with numerous guarantees for investors. The provisions contained therein were aimed at allowing a level playing field between national and foreign investors in the energy sector in order to reduce the non-commercial risks associated with such operations. This entailed the inclusion, in the Agreement, not only of substantive rules designed to ensure the protection of foreign investments in the energy market but also of a complex system for resolving disputes aimed at offering foreign investors the possibility to act, at the international level, in the event of potentially illegal measures adopted by host States[55] in the presence of domestic judicial systems deemed inadequate. Therefore, alongside the various guarantees of a substantial nature, there are important procedural safeguards in the ECT, as this Treaty contains specific rules for the settlement of disputes both between the Contracting Parties[56] and between the host State of the investment and the foreign investor. This second category of disputes is governed by Article 26 of the ECT, according to which any dispute between the host State and the foreign investor must be settled amicably, where possible. If an amicable resolution is not reached within three months from the submission of the request, the investor may choose to submit the dispute to the courts or administrative tribunals of the Contracting Party involved in the dispute; to the previously agreed dispute settlement procedure; or to the procedures established in the same Article 26, which are the International Centre for Settlement of Investment Disputes (ICSID) or the ICSID Additional Facility Rules, the arbitration under the United Nations Commission on International Trade Law (UNCITRAL) Arbitration Rules, or the arbitration provided for by the Arbitration Institute of the Stockholm Chamber of Commerce.

Similarly to what happens for the majority of IIAs, especially for the older ones, also in the ECT, there are no specific rules related to the protection of the environment, with the exception of Article 19 (entitled "Environmental Aspects"), which, however, is limited to generally affirming, in para. 1, "each Contracting Party shall strive to minimize in an economically efficient manner harmful Environmental Impacts."[57]

For a long time, this Agreement has attracted scant attention from both States and academia. On the contrary, it is currently at the center of a heated debate, since this is considered by some as a tool available to foreign investors to limit the regulatory sovereignty of the host States in defining their energy and environmental policies (Sachs et al. 2020, p. 90 ff), while others see it as an important means of allowing compliance with the rules in international energy relations (Belyi 2020).

This Treaty is a test bench for many issues related to the complex relationship between international environmental law/climate change law and international investment law [58] because, unlike the majority of IIAs, which apply to all areas, the ECT exclusively covers

[55] See particularly Article 26 ECT.

[56] See Articles 27 and 28 ECT.

[57] Nevertheless, in December 1994, the Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA) was also signed together with the ECT, which in any case has a modest impact, simply requiring Contracting Parties to formulate clear policy objectives for improving energy efficiency and reducing the negative environmental impact of the energy cycle. Subsequently, at the end of the meeting of the Energy Charter Conference in 2018 in Bucharest, the Contracting Parties expressly recognized the importance of a sustainable energy future in line with the Paris Agreement and the United Nations SDGs.

[58] See in this regard Marshall et al. (2010), Miles (2010, pp. 86–91) and Johnson (2009, pp. 11147–60). On the issue of the relationship between international investment law and, more generally, international environmental law, see (Di Benedetto 2013; Viñuales 2009, pp. 244–332). The topic of the contrast between international norms on climate change (and in general on the environment) and the obligations imposed by international law for the protection of foreign investments is linked to the issue of the so-called "fragmentation" of international law. See in this regard International Law Commission, *Report of the Study Group on the Fragmentation of International Law, Held at Geneva, Switzerland, from 29 April to 7 June and 22 July to 16 August 2002*, A/CN.4/L.682. On this aspect, see (Tomuschat 2010, pp. 323–54; Van Aaken 2006, pp. 91–130).

investments in the energy sector, which is responsible for 84% of anthropogenic CO2 emissions and 64% of emissions of greenhouse gases (Marshall et al. 2010, p. 22).

Furthermore, the ECT has been recently subjected to a "modernization process," the outcome of which affects the problem of global warming (Sussman 2007, p. 391 ff; Miles 2008), since the process in question could have favored the transition from fossil-based energy to renewable energies,[59] with important consequences on the phenomenon of climate change.[60]

The modernization process was especially supported by the EU, which aspired to: the inclusion of clauses concerning the graduated phase-out of investment protection for fossil fuels; the coverage of new low-carbon investments; the explicit recognition of the right to regulate; the indirect expropriation carve-out for non-discriminatory climate change measures; a non-regression clause; and the commitment to a clean energy transition.

After a complex process started in 2020, the ECT Contracting Parties reached an Agreement in principle for the reform of the Treaty on 24 June 2022. This Agreement was leaked on 12 September 2022. The leaked Agreement seems to address some of the limitations of the old-generation IIAs. However, the proposed changes still appear to be insufficient for making the ECT fully aligned with the goals of climate change mitigation and energy transition.

The modernized Treaty introduces several amendments aimed at facilitating "greener investments" in the future. Firstly, it provides for the protection of new energy materials, such as hydrogen, biomass, biogas, and synthetic fuels. Secondly, a "flexibility mechanism" is foreseen, allowing Contracting Parties to exclude the protection of fossil fuel investments in their territories. Thirdly, a review mechanism is established, enabling Contracting Parties to periodically review the flexibility mechanism and the list of protected investments every five years in response to technological and policy changes in the energy sector. Fourthly, the modernized Treaty acknowledges the obligations of the Contracting Parties under the UNFCCC and the Paris Agreement. Fifthly, it sets up an ad hoc dispute settlement mechanism for disputes between Contracting Parties regarding the interpretation and application of provisions on sustainable development. Furthermore, a new standalone article is devoted to the right to regulate for achieving legitimate policy objectives,[61] which could provide States with a tool to affirm the legitimacy of their regulatory measures.

In addition, mirroring the EU–Canada Comprehensive Economic and Trade Agreement (CETA),[62] the new Article 10(2) outlines six elements to assess breaches of the obligation to provide fair and equitable treatment (FET). Moreover, para. 4 of this Article explicitly designates climate change mitigation and adaptation as legitimate policy objectives.

Moving forward, Article 13 has refined the definition of expropriation, reducing the likelihood of claims that regulatory measures constitute indirect expropriation.

References to the obligations of Contracting Parties under the UNFCCC and Paris Agreement have been integrated into various sections of the Treaty. These include the Preamble, Article 19 (now titled "Sustainable development"), which has been expanded

[59] The UNFCCC commissioned the IPCC to outline the paths through which the ambitious goal of the Paris Agreement of reducing global warming to 1.5 °C can be achieved. The IPCC considers it necessary to implement by 2050 a reduction in use of coal by 73–97%, oil by 81–87%, and gas by 21–74%. Furthermore, the share of renewable energies in the global electricity supply is expected to increase by 63–77% over the same period. See (IPCC 2018, p. 14).

[60] Low-carbon energy investments are currently still insufficient to allow the international community to meet the established climate change mitigation objectives. Furthermore, there is still a huge investment gap between the current level and the level needed to increase the use of renewable energy in order to have a positive impact on climate change mitigation. See in this regard (Climate Policy Initiative and IRENA 2018, p. 177 ff).

[61] According to this new Article: "The Contracting Parties reaffirm the right to regulate within their territories to achieve legitimate policy objectives, such as the protection of the environment, including climate change mitigation and adaptation, protection of public health, safety, or public morals."

[62] See Article 8.10, para. 2, CETA.

significantly,[63] and a new article titled "Climate change and clean energy transition." This new article reaffirms the commitments of each Contracting Party to promote and enhance climate policies and investments relevant to climate change mitigation and adaptation.

These explicit mentions to international climate change obligations should persuade arbitral tribunals to take into consideration also environmental commitments in the assessment of legitimacy of domestic measures adopted to limit fossil fuels use or to promote clean energies. However, the Contracting Parties essentially reaffirm their existing duties in the international climate change regime, without taking on new or more ambitious commitments and without creating new cooperation mechanisms.

At the same time, key substantive investment provisions still appear to be deficient compared to those included in the most recent IIAs. It is likely that the modernized ECT will continue to allow arbitral tribunals to broadly interpret ECT provisions, potentially exposing States to liability.

Additionally, Article 27 of the ECT, which governs the settlement of disputes between Contracting Parties, will not apply to Article 19 or the new article on climate change. These disputes will fall under the scope of Article 28 bis, which stipulates that they be settled through diplomatic channels or, if unsuccessful, through conciliation. This means that the proposal by EU Members to refer State-to-State disputes related to sustainable development and climate change to arbitration has been rejected.

Since the ISDS system was not included in the list of topics for modernization, this aspect has been addressed by the reform in a very limited manner. Even though some new provisions on procedural elements of dispute settlement have been introduced,[64] the system itself remains intact. This represents one of the main weaknesses of the modernized Treaty, particularly given that no significant amendments favoring the energy transition and addressing investment governance challenges have been proposed.

However, one of the most concerning shortcomings in the modernized text is the retention of the so-called "survival clause," contained in Article 47(3) of the Treaty. This clause was not included in the topics for modernization and poses a significant limit on States' ability to exit the Treaty. It effectively freezes protections for existing investments for 20 years after withdrawal takes effect. This 20-year survival period clashes with the rapid changes in the energy market and the need for States to continuously adjust their energy policies and adopt regulatory measures.

Concluding, it is quite evident that the results of the modernization process are highly insufficient and that a successful alignment with the SDGs, particularly SDG 13 (Climate Action), and the commitments of the Paris Agreement has not been achieved. The failure of the modernization process shows how difficult it is to find a balance between international investment law and environmental/climate change law. Indeed, this process could be a historic opportunity to significantly influence the development of standards for the promotion and protection of green investments while fully respecting international commitments to combat climate change.

## 7. Energy Security, Energy Transition, and FDI: Is It Possible to Strike a Balance?

Energy represents a key element for the socio-economic development of every country, and, consequently, energy security has been traditionally considered a fundamental component of national security.

For a long time, the concept of energy security has been strictly linked to the need to ensure a supply in order to allow economic growth; therefore, initially, the main goal was diversifying energy sources and partners. In this context, the concept of energy security

[63] This article also foresees that each Contracting Party will require that an impact assessment is carried out. Such assessments shall identify and assess the effects of the project on population and human health, biodiversity, land, soil, water, air, and climate, as well as cultural heritage and landscape (letter i).

[64] For instance, the Rules on Transparency in Treaty-based Investor–State Arbitration, adopted by the UNCITRAL on 11 July 2013, are applied to all investor–State arbitrations under the Treaty (Article 26(6)), promoting the transparency of the process and a wider consistency of decision making.

has been interpreted in relation to the necessity to guarantee the availability of primary energy sources or energy independence. Subsequently, new forms of risks have acquired importance, connected with the geopolitics of the energy transition, which covers the protection of domestic R&D capabilities in wind and solar power, the access to critical raw materials, and the question of data protection (Goldthau et al. 2019, pp. 29–31). Thus, the traditional key elements of energy security, i.e., the availability of primary energy sources and the pursuit of energy independence, are even more important today than ever because of the safeguard of energy technology development capabilities and of concerns linked to a wrongful use of big data.

Consequently, critical infrastructures, critical energy technologies, and data-driven technologies are normally covered by domestic screening laws and policies.

The new stricter approaches in the investment screening legislation and policy could compromise the propensity of energy companies to invest abroad.[65] This signifies that the ever-changing investment screening landscape may have a chilling effect on energy-related FDI, hindering the energy transition due to the lack of the necessary financial resources. Therefore, States could be put in the position of having to decide whether to give priority to the SDGs and environmental commitments or to create possible impediments for FDI by strictly applying domestic screening systems.

Indeed, nowadays, the issue of energy security has also assumed an additional dimension connected with the impacts of energy production and consumption on climate change. In fact, in the last decades, there have been increases in both energy consumption and greenhouse gas emissions, which can no longer be underestimated. This means that attention is now focused not only on securing provision but also more and more on strengthening diversification and, particularly, on limiting the negative effects of energy consumption on the environment. This implies the inclusion of a "sustainability component" in international energy relations.

At the same time, the recent Russia–Ukraine conflict suggests that an improvement of the legal framework appears fundamental to allow States to safeguard their energy security and neutralize the *weaponization* of energy in the new geopolitical context (Boute 2022, pp. 740–51).

In this complex framework, international investment law does not necessarily have to represent an obstacle, but it should be modified and applied to find a balance between opposing divergent interests (Acconci 2023; Newton 2022).

Climate change currently represents one of the greatest challenges for the international community, as the global rise in temperature risks having devastating consequences. Foreign investments, as noted earlier, could play a pivotal role in combating this phenomenon, thus favoring the achievement of the SDGs. Nevertheless, most of the existing IIAs have not been negotiated to promote and protect the foreign investments necessary for the fulfillment of these goals. On the contrary, such treaties can, on the one hand, promote investments that are harmful to the environment and, on the other hand, limit the ability of governments to prevent or deal with the resulting damage, thus hindering the adoption by the host State of measures for the mitigation or adaptation to climate change and, in general, initiatives to protect the environment. Thus, apparently, the protection of foreign investments and the fight against climate change are conflicting aspirations. The ECT modernization process or, better, its failure clearly shows how difficult it is to reconcile investment protection and climate objectives.

Regardless, it is possible to settle the incompatibilities between these two subsystems of international law and to face the risk of legal fragmentation through a profound reform

[65] This new domestic approach towards FDI could have practical implications for companies and governments. Now, companies operating in the energy sector must address a greater risk to be subject to a domestic national security review compared to the past due to the enlargement of the FDI screening laws' scope. Previously, investments in the energy sector mainly regarded the exploration, production, transmission, and supply of energy, and there was a high probability of government intervention on the basis of national or public security; meanwhile, currently, the present investment screening mechanisms concern a more diversified group of companies and activities.

of the international investment regime, which demands innovative approaches at both the jurisprudential and regulatory levels.

So far, arbitral tribunals have interpreted the rules contained in the IIAs without giving relevance to environmental needs, often limiting the host State's ability to take measures to tackle climate change (Cotula 2023, pp. 766–91; Sharma 2022, pp. 758–62). However, in some recent cases, a more balanced reading of guarantees for the benefit of investors has been achieved, which has also taken into account the necessity to protect the environment and to respect the public interests (Marisi 2020).[66] In other circumstances, ISDS has been used to protect investments in renewables, particularly under the ECT, proving that the international investment law system can also favor the energy transition (Newton 2022). However, in general, investment tribunals should give more relevance to the climate regime in the settlement of investor–State disputes. This means that international treaties and other instruments concerning the climate change phenomenon should be taken into consideration in ISDS proceedings. This could be facilitated if the climate regime has been incorporated as part of the domestic laws of the host State; when it is considered by the tribunal as part of the legal context of the dispute; and when it is used as applicable law (Martini 2024, pp. 1–36).

Furthermore, it is crucial to insert clear and well-defined articles in IIAs that allow States to decide adaptation and mitigation measures to fight climate change. There are several possible paths. Firstly, IIA reform demands the inclusion of provisions that adequately guarantee the right and duty of States to regulate in the public interest, favoring the transition to low-carbon economies. At the same time, clauses for the promotion and facilitation of sustainable energy investment, aimed at accentuating the contribution of FDI to the sustainable energy transition, should be inserted in the treaties (Dooley 2022, pp. 849–86; UNCTAD 2010, p. XXVII), giving importance to the objective of ensuring access to affordable, reliable, sustainable and modern energy for all (SDG 7), while those investments that may have a negative impact on the environment and climate should be deprived of protection.[67] In addition, technology transfer provisions, as well as more detailed corporate social responsibility references, should be encompassed in future IIAs. Finally, one fundamental innovation would be the introduction of IIA clauses creating a carve-out from ISDS for measures related to the reduction of greenhouse gas emissions (Schaugg et al. 2024). This issue was recently discussed on occasion of the 9th annual Investment Treaty Conference on "Supporting the Global Energy Transition: Methods to align investment treaties with the Paris Agreement" organized by the OECD.[68] Nevertheless, it must be added that a debate is ongoing on the effectiveness of these carve-outs as shield for States, given that in *Eco Oro Minerals v Colombia*, the majority of the ICSID tribunal recognized that the carve-out may allow the host State to "adopt or enforce [an environmental protection] measure . . . without finding itself in breach of the FTA [free trade agreement], [but] this does not prevent an investor claiming . . . that such a measure entitles it to payment of compensation."[69]

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[66] See, *in particular, Perenco Ecuador Ltd. v Republic of Ecuador and Empresa Estatal Petróleos del Ecuador (Petroecuador)*, ICSID Case No. ARB/08/6, Interim Decision on the environmental counterclaim of 11 August 2015 and Award of 27 September 2019; and *Burlington Resources Inc. v Republic of Ecuador* (formerly *Burlington Resources Inc. and Others* v *Republic of Ecuador and Empresa Estatal Petróleos del Ecuador (PetroEcuador) Burlington)*, ICSID Case No. ARB/08/5, Decision on Ecuador's counterclaims of 7 February 2017.

[67] For example, States could envisage within the IIAs tools such as the Clean Development Mechanism (CDM), which is one of the flexible mechanisms contemplated by the Kyoto Protocol (Article 12), thanks to which companies in industrialized countries with emissions constraints can carry out projects aimed at reducing greenhouse gas emissions in developing countries without emission constraints. The Kyoto Protocol was adopted on 11 December 1997, at the III Conference of the Parties (COP3) of the UNFCCC.

[68] See OECD, *Future of Investment Treaties Track 1—Investment Treaties and Climate Change*, Academic Contribution (Joshua Paine and Elizabeth Sheargold) to the 9th Investment Treaty Conference, 23 February 2024, 2024DAF/INV/TR1/RD(2024)1 (OECD 9th Annual Conference on Investment Treaties, 11 March).

[69] *Eco Oro Minerals Corp v The Republic of Colombia*, ICSID Case No. ARB/16/41, Decision on Jurisdiction, Liability and Directions on Quantum of 9 September 2021, para. 830. On this case, see (Lester 2021).

However, even though the process of reform of international investment regime is still uncertain, this is ongoing and it is clear that changes will have impacts on the energy transition and the fight against climate change.

The EU could have a leading role in this field, pushing for solutions that allow environmental obligations to be concretely implemented in compliance with the rules for the protection of foreign investments contained in the IIAs. After all, this organization has long included a specific chapter on sustainable development in its FTAs.[70]

Nowadays, as for other economic sectors, the main obstacle in the field of energy also appears to be the achievement of a right balance between the recognition of a sufficient discretion for States to protect their energy security interests as well as to implement sustainable development policies and the guarantee of free and safe international investment flows, also considering the fundamental relevance that FDI can have in energy transition and, consequently, in satisfying the "sustainability" dimension of domestic energy security (Dias Simões 2019, pp. 206–20).

However, the climate change challenge needs not only modifications of IIAs and in the approaches followed by investment tribunals but also the establishment of a new framework where climate goals represent the foundations. This could effectively guarantee a concrete transformation of international investment law, its scope, and its mandate.

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[70] See for example Chapter 22 CETA; Chapter 12 EU-Singapore free trade agreement (FTA), signed on 19 October 2018; and Chapter 13 EU-Vietnam FTA, signed on 30 June 2019. See also Section IV of the Comprehensive Agreement on Investment with China (Agreement "in principle" of 30 December 2020). On this topic, see (Gehring and Tokas 2022, pp. 778–812).

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