



ENERGY, CLIMATE AND THE ENVIRONMENT

# Aspects of the Energy Union

Application and Effects of  
European Energy Policies in SE Europe  
and Eastern Mediterranean

*Edited by* Michalis Mathioulakis



palgrave  
macmillan

# Energy, Climate and the Environment

## **Series Editors**

David Elliott  
The Open University  
Milton Keynes, UK

Geoffrey Wood  
School of Law  
University of Stirling  
Stirling, UK

The aim of this series is to provide texts which lay out the technical, environmental and political issues relating to proposed policies for responding to climate change. The focus is not primarily on the science of climate change, or on the technological detail, although there will be accounts of this, to aid assessment of the viability of various options. However, the main focus is the policy conflicts over which strategy to pursue. The series adopts a critical approach and attempts to identify flaws in emerging policies, propositions and assertions. In particular, it seeks to illuminate counter-intuitive assessments, conclusions and new perspectives. The intention is not simply to map the debates, but to explore their structure, their underlying assumptions and their limitations. The books in this series are incisive and authoritative sources of critical analysis and commentary, clearly indicating the divergent views that have emerged whilst also identifying the shortcomings of such views. The series does not simply provide an overview, but also offers policy prescriptions.

More information about this series at  
<http://www.palgrave.com/gp/series/14966>

Michalis Mathioulakis  
Editor

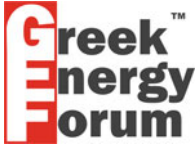
# Aspects of the Energy Union

Application and Effects of European  
Energy Policies in SE Europe and  
Eastern Mediterranean

palgrave  
macmillan

*Editor*

Michalis Mathioulakis  
Greek Energy Forum  
Athens, Greece



Energy, Climate and the Environment

ISBN 978-3-030-55980-9

ISBN 978-3-030-55981-6 (eBook)

<https://doi.org/10.1007/978-3-030-55981-6>

© The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Nature Switzerland AG 2021

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Cover credit: Carloscastilla/Alamy Stock Photo

This Palgrave Macmillan imprint is published by the registered company Springer Nature Switzerland AG

The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
	<i>Michalis Mathioulakis</i>	
<b>Part I Security &amp; Geopolitical Aspects of the Energy Union</b>		
<b>2</b>	<b>Has the Energy Union Strategy Delivered Concrete Solutions to Europe's Energy Security Question?</b>	<b>17</b>
	<i>Christos Syriopoulos</i>	
<b>3</b>	<b>Energy Geopolitics Crossovers in Central &amp; Eastern Mediterranean at the Prize of the Energy Union Policy</b>	<b>47</b>
	<i>Thrassy N. Marketos</i>	
<b>4</b>	<b>Strategic Elements of the Energy Union and the Role of Regulation in Energy Security</b>	<b>73</b>
	<i>Michalis Mathioulakis</i>	

**Part II    Regional and Regulatory Aspects of the Energy Union**

- 5    Geopolitical Challenges and Cooperation in the European Energy Sector: The Case of SE Europe and the Western Balkan Six Initiative**      101  
*Sotirios Manolkidis*
- 6    Integrating Energy Markets in the Wider Europe**      115  
*Panayotis Glavinis, Anna Konstantinidou, Afroditi Semkou, Elias Andreadis, and Elias Kolovos*
- 7    Soft Measures for Energy Market Reform in the Western Balkans**      141  
*Maria Bozoudi*
- 8    The Role of the Energy Charter Process in Accelerating the Energy Transition and Ensuring Energy Security in South East Europe in Line with the Energy Union**      159  
*Gokce Mete Mete and Janessa Goh Pei-Ru*

**Part III    Transitional Aspects of the Energy Union**

- 9    Drivers and Enablers of LNG Bunkering**      187  
*Alexandros Lagakos*
- 10    The EU Green Deal and the Impact on the Future of Gas and Gas Infrastructure in the European Union**      201  
*Constantine Levoyannis*
- 11    Energy in Transition: Investing in Green Energy and Circular Economy to Enhance Energy Security**      225  
*Spyros Kiartzis, Katerina Tsita, and Evangelia Paschalidou*

<b>12</b>	<b>Challenges and Opportunities in Renewable Energy Developments</b>	<b>247</b>
	<i>Ivan Pineda</i>	
<b>13</b>	<b>Offshore Wind: Staying Ahead of the Curve</b>	<b>277</b>
	<i>Marios Papalexandrou</i>	
<b>Part IV Technical Aspects of the Energy Union</b>		
<b>14</b>	<b>Energy Analytics: From Data Acquisition to Data-Driven Business Models</b>	<b>299</b>
	<i>Dimitrios I. Doukas</i>	
<b>15</b>	<b>Maintenance: A Key Factor for Energy Efficiency</b>	<b>321</b>
	<i>Vassilios Kappatos</i>	
<b>16</b>	<b>Conclusions</b>	<b>337</b>
	<i>Michalis Mathioulakis</i>	





# 6

## Integrating Energy Markets in the Wider Europe

Panayotis Glavinis, Anna Konstantinidou,  
Afroditi Semkou, Elias Andreadis, and Elias Kolovos

### 6.1 Introduction

The EU has constituted an Energy Union by absorbing the energy markets of the EU Member States, which now operate within the single European market. The Energy Union has its own rules and institutions, where independent energy regulators in the Member States are coordinated by the European Commission to regulate national energy markets effectively. It is built upon a uniform set of rules, largely of EU origin, that ensures a level playing field for energy players in the EU. The internal European energy market has a long way to go before forming a genuine single market, subject to the same pan-European operating rules. This is because the European energy market is still primarily divided into national energy markets, as national energy networks are not fully interconnected. This feature also affects the regulation of the single European

---

P. Glavinis (✉) · A. Konstantinidou · A. Semkou · E. Andreadis · E. Kolovos  
University of Thessaloniki, Thessaloniki, Greece  
e-mail: [glavinis@law.auth.gr](mailto:glavinis@law.auth.gr)

energy market, which cannot reach the highest degree of integration, unless the pan-European energy networks are interconnected in such a way that the national energy markets of the EU Member States will function as communicating vessels, where the same level of fluid will indicate the absolute harmonization of their operating rules. The EU is energy-dependent on sources located in third countries where primary energy is produced and transported to Europe, where it is consumed. These countries are geographically situated in the area that we call Wider Europe. The markets in these countries are not governed by EU law. For the security of its supply and the smooth and predictable operation of its energy market, the EU has an interest in extending the *acquis communautaire*, in other words, the European energy *acquis*, to non-member states neighbouring it. From the above derives the necessity to interconnect the countries of the wider Europe by subjecting the regional energy markets on both sides of the European frontiers to the same operating rules to ensure an uninterrupted flow of sufficient energy resources to Europe at affordable prices. The EU possesses three main tools to foster the integration of the energy markets in the wider Europe: The Energy Community, the TEN-E strategy, and the Energy Charter Treaty.

## 6.2 The Need to Harmonize Laws Across Borders and the Energy Community

Energy law is “the allocation of rights and duties concerning the exploitation of all energy resources between individuals, between individuals and the government, between governments and between states”.<sup>1</sup> As a result, since energy trade has overcome national borders, internationalization of the energy markets is of paramount importance and can be considered; either as regards to the influence that international law has on energy markets or as internationalization of national laws.<sup>2</sup> This

---

<sup>1</sup>A. Bradbrook, Energy Law as an Academic Discipline, *Journal of Energy and Natural Resources Law*, 14, 1996, 194.

<sup>2</sup>K. Talus, *Research Handbook on International Energy Law*, Research Handbooks in International Law, 2014.

international aspect has expanded to all fields of energy law, from exploration and generation to transportation, downstream energy markets, national sovereignty and as a consequence, to its regulatory framework. The international and cross-border essence of the energy industry is indisputable. Since the occurring problems are many when it comes to conflicting rules, absence of rules or regulatory instruments that don't relate from one jurisdiction to another,<sup>3</sup> a degree of harmonization of national regulatory regimes is highly required. Even the most hardcore national energy-related areas, such as government contracts or production licencing are significantly influenced by international law, the practices followed are common and the rules applied are uniform regardless of geographical location.

EU Law is a hybrid system, somewhere between national and international law. It has grown dramatically over the last twenty years. First, the electricity and gas directives in 1996 and 1998, then the second energy package in 2003 and the third energy package in 2009, turned the EU energy *acquis* to a key element of liberalization, through exporting its energy laws and policies. The dependency of the EU on imported energy is a fact; the limitation of fossil resources with the simultaneous consumption growth is another fact. Natural gas comes from Norway and Russia; oil comes from the Middle East, Nigeria and Norway and coal comes from Colombia and the United States. This extent of dependency is problematic when it comes to possible disturbances affecting the availability of energy, such as political circumstances in the exporting country, conflicts between countries, etc. The case of Russia and Ukraine, for example, was critical for the EU to realize that the risks relating to energy dependency should be minimized and security of supply must be enhanced by all means.<sup>4</sup> Energy Security is the constant and uninterrupted availability of affordable energy<sup>5</sup> that can be achieved through various methods, some of which are the diversification of the energy mix, the decentralization of energy supplies, the improvement of energy

---

<sup>3</sup>T. Wälde, "Why OGEL-an Oil-Gas-Energy Law Intelligence Service?", 1 OGEL (2003).

<sup>4</sup>K. Talus, *Introduction to EU Energy Law*. First Edition, Oxford University Press, 2016.

<sup>5</sup>K. Talus, "Security of Supply: An Increasingly Political Notion", in Bram Delvaux, Michael Hunt, Kim Talus (eds.) *EU Energy Law and Policy Issues* (Euroconfidentiel, 2008), pp. 123–149.

efficiency, the multiplication of energy sources and the adaptability of the markets that is accomplished by upgrading international cooperation. Since the energy markets are international, the external relations among the countries are of paramount importance and should be the cornerstone of the energy policy. The EU considers that its global energy interests are better served when third countries incorporate the operating rules of its internal market. This provides a framework of stability and predictability to the flow of energy resources from outside Europe into the European Union. To this end, the EU has signed a plethora of bilateral agreements reflecting the geopolitical approach to energy security. The most interesting one is the Treaty on the Energy Community also discussed in other chapters of this book. This Treaty entered into force in 2006 for a period of ten years that was further extended until 2026. It established a community among the EU countries on the one hand and the Albania, Bulgaria, Bosnia and Herzegovina, Croatia, North Macedonia, Montenegro, Romania, Serbia and Kosovo on the other hand, to meet specific targets. To begin with, what was first needed was the establishment of a stable regulatory framework, attractive for new investments not only in power generation but also in networks, ensuring equal access to the energy supply to all parties. Furthermore, product markets constituted a big geographic area that had to be coordinated in the context of a single regulatory space for trade, with an eye to the development of network energy market competition. This space should provide an investment-friendly environment, capable of intensifying the security of supply, by promoting connections to the Caspian, North African and Middle Eastern gas reserves, or utilization of regional energy resources.

Finally, all the aforementioned should take place in an environmentally-friendly climate, fostering the use of renewable energy. With regard to its structure, the Energy Community follows an institutional system that is similar to that of the EU<sup>6</sup>; the Ministerial Council, for the provision of policy guidelines and the adoption of procedural acts, the Regulatory Board for the issuance of recommendations when

---

<sup>6</sup>M. Hunt and R. Karova, "The Energy Acquis under the Energy Community Treaty and the Integration of South East European Electricity Markets: An Uneasy Relationship?", in B. Delvaux, M. Hunt, and K. Talus (eds.), *EU Energy Law and Policy Issues* (Euroconfidential, 2010), pp. 51–86.

it comes to cross-border affairs and the Secretariat based in Vienna, which administratively supports the other two institutions and monitors the obligations of the parties.<sup>7</sup> Legally binding decisions can be taken, and non-legally-binding recommendations can be issued, whereas the measures needed are based either on the Commission's or a contracting party's proposal. The basic idea of the Energy Community was to export the EU energy *acquis* to all the parties of the Treaty, which practically means that the energy regulation, the internal market rules and competition standards are all implemented by the contracting states. Given that the ECT has not succeeded its target to become a bridge between East and West, the EU's focus regarding its external energy policy has switched to the Energy Community, that is nowadays expanding towards the Caspian Sea and developing its content by implementing the framework of the Third Energy Regulatory Package, in line with the ultimate target of security supply.

### 6.3 TEN-E Strategy and Projects of Common Interest

Energy infrastructure is of the utmost importance for the EU. The EU is highly reliant on third countries to secure the necessary energy resources to meet its energy targets. Therefore, the security of the energy supply itself is crucial for the energy future of the EU, which of course entails the necessity of further improving, developing and enhancing the energy infrastructure of EU countries. To note, the development of sustainable infrastructure that will also meet the environmental targets of the EU is also a crucial challenge for the EU. Taking a step towards this direction, the Union has already undertaken proper actions especially by adopting Regulation (EU) 347/2013 of the European Parliament and the Council on guidelines for Trans-European energy infrastructure, effectively adopting the Trans-European Networks for Energy (TEN-E) Strategy to strengthen further and integrate the internal market and

---

<sup>7</sup>Report from the Commission to the European Parliament and the Council under Art. 7 of Decision 2006/500/EC (COM(2011)105 final (10 March 2011)).

to enhance the security of the energy supply and diversify its energy suppliers. The Regulation: “(a) addresses the identification of projects of common interest necessary to implement priority corridors and areas falling under the energy infrastructure categories in electricity, gas, oil, and carbon dioxide set out in Annex II (‘energy infra-structure categories’); (b) facilitates the timely implementation of projects of common interest by streamlining, coordinating more closely, and accelerating permit granting processes and by enhancing public participation; (c) provides rules and guidance for the cross-border allocation of costs and risk-related incentives for projects of common interest; (d) determines the conditions for eligibility of projects of common interest for Union financial assistance”.<sup>8</sup> The prompt implementation of the TENE strategy is crucial for the EU to accomplish its energy targets, reduce production and operation costs and render the wholesale prices more competitive while furthering the potential for development in the energy sector and enhancing the energy security. For this purpose, the EU identified a framework within which specific energy infrastructure projects would get specific incentives and benefits. These projects are called Projects of Common Interest (PCIs).

But how does an energy project qualify as a PCI? Article 4 of the Regulation stipulates three criteria: “(a) the project is necessary for at least one of the energy infra-structure priority corridors and areas; (b) the potential overall benefits of the project, assessed according to the respective specific criteria in paragraph 2, outweigh its costs, including in the longer term; and (c) the project meets any of the following criteria: (i) involves at least two Member States by directly crossing the border of two or more Member States; (ii) is located on the territory of one Member State and has a significant cross-border impact as set out in Annex IV.1; (iii) crosses the border of at least one Member State and a European Economic Area country”. If the project fulfils the criteria mentioned above, then it should also fall under one of the nine priority corridors as they are laid out in Annex I of the regulation or under one of the three priority thematics regarding electricity, gas, and oil corridors.<sup>9</sup>

---

<sup>8</sup>See article 1, para. 2.

<sup>9</sup><https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013R0347>.

In particular, the Regulation stipulates that regarding priority electricity corridors: “(1) Northern Seas offshore grid (NSOG): integrated offshore electricity grid development and the related interconnectors in the North Sea, the Irish Sea, the English Channel, the Baltic Sea and neighbouring waters to transport electricity from renewable offshore energy sources to centres of consumption and storage and to increase cross-border electricity exchange. (2) North-South electricity interconnections in Western Europe (NSI West Electricity): interconnections between Member States of the region and with the Mediterranean area including the Iberian Peninsula, notably to integrate electricity from renewable energy sources and reinforce internal grid infrastructures to foster market integration in the region. (3) North-South electricity interconnections in Central Eastern and South-Eastern Europe (NSI East Electricity): interconnections and internal lines in North-South and East-West directions to complete the internal market and integrate generation from renewable energy sources. (4) Baltic Energy Market Interconnection Plan in electricity (BEMIP Electricity): interconnections between Member States in the Baltic region and reinforcing internal grid infrastructures accordingly, to end isolation of the Baltic States and to foster market integration inter alia by working towards the integration of renewable energy in the region”. As regards to the priority gas corridors, the Regulation stipulates that: “(5) North-South gas interconnections in Western Europe (NSI West Gas): gas infrastructure for North-South gas flows in Western Europe to further diversify routes of supply and for increasing short-term gas deliverability. (6) North-South gas interconnections in Central Eastern and South-Eastern Europe (NSI East Gas): gas infrastructure for regional connections between and in the Baltic Sea region, the Adriatic and Aegean Seas, the Eastern Mediterranean Sea and the Black Sea, and for enhancing diversification and security of gas supply. (7) Southern Gas Corridor (SGC): infrastructure for the transmission of gas from the Caspian Basin, Central Asia, the Middle East and the Eastern Mediterranean Basin to the Union to enhance diversification of gas supply. (8) Baltic Energy Market Interconnection Plan in gas (BEMIP Gas): gas infrastructure to end the isolation of the three Baltic States and Finland and their dependency on a single supplier, to reinforce internal grid infrastructures accordingly, and to increase diversification and security of

supplies in the Baltic Sea region.” Finally, regarding the priority oil corridors, the Regulation requires that: “(9) Oil supply connections in Central Eastern Europe (OSC): interoperability of the oil pipeline network in Central Eastern Europe to increase the security of supply and reduce environmental risks”.

The three priority thematic areas provided in the Regulation are smart grids deployment, electricity highways and cross-border carbon dioxide networks. The TEN-E strategy encapsulates the EU’s targets for decarbonization, further development of renewable energy resources and the development of electricity storage facilities. Once it has been decided that a project has satisfied all the necessary prerequisites, it is included in the biannual list that contains all the PCIs. Every two years since 2013, the EU, after proper consultations, issues a list of PCIs. The 2017 list contains 173 projects, of which 106 are for transport and storage of electricity, four for the deployment of smart grids, 53 natural gas, six oil and four cross-border carbon dioxide networks. Specific incentives and benefits are applicable to the PCIs, which acquire “Priority status”. This means that PCIs benefit from faster planning and licencing procedures enhanced regulatory terms, lower administrative costs, increased participation of the public through consultations and increased visibility towards potential investors. The list is accompanied by a crucial technical document, which contains more information regarding each project separately and more specifically its location, its type and the technology used for its implementation, as well as the relevant dates for the start of its implementation. In addition, the PCIs have access to the “Connecting Europe Facility” (CEF) amounting up to 5.35 billion euro, a fund dedicated to speeding the energy projects and attracting potential investors. CEF will enjoy an even larger budget for the 2021–2027 periods amounting up to 42.3 billion euro. PCIs receive strategic and political guidance from the High-Level Groups, the Regional Groups and the Expert Groups, which correspond to the aforementioned priority corridors or thematic areas.



### 6.3.1 The Crucial Projects

To integrate the energy markets of the wider Europe into the EU energy market, we need further prompt and targeted interventions on the part of the EU on this very crucial sector. Unfortunately, of the 173 projects included in the 2017 PCI list, only 12 have a wider Europe cross-border impact. These projects, however, are not minor or insignificant. They are an essential starting point on which the EU can build upon to realize its energy and environmental targets, but also the integration of the wider Europe energy Markets, which, for the most part, are its future energy suppliers. Regarding electricity, these include: Nordlink (Germany—Norway), North Sea Link (UK—Norway), Ice Link (UK—Iceland), Green connector (Italy—Switzerland), Interconnection between Airolo and Baggio (Switzerland—Italy), Euroasia Interconnector (Israel—Cyprus—Greece), Mid Continental East Corridor (Romania—Serbia and Italy—Montenegro) and ElMed (Italy—Tunisia). In natural gas, they include Passo Gries (Italy—Switzerland), IBS (Bulgaria—Serbia), the Trans-Caspian Gas Pipeline (TCP), the South Caucasus Pipeline Future Expansion (SCPFEX), Trans Anatolian Natural Gas Pipeline (TANAP) (Turkmenistan—Azerbaijan—Georgia—Turkey—Greece) and the EastMed (Israel—Cyprus—Greece). In order to implement these PCIs across borders, considerable investments are needed from the private sector, in addition to any grants that the EU is prepared to allocate, especially at the design phase. The Energy Charter Treaty (ECT), also discussed in other chapters of this book, is the main instrument available today to regulate cross-border Foreign Direct Investments.

## 6.4 The Regulation of Cross-Border Investments Under the Energy Charter Treaty

The fundamental objective of the ECT was to create a level playing field for energy investments across the geographical scope of the Treaty to minimize the non-commercial risks associated with the investments

made in the energy sector.<sup>10</sup> Western European states wanted equal opportunities for access to Eastern and Central European markets while Eastern and Central European states sought to protect the domestic investors and control their economic policies. This dimension is also reflected in the relevant provisions of the Charter.<sup>11</sup> EU's core initiative behind the ECT was the protection of the existing East-West energy flows, the promotion of the anticipated West-East investment flows, as well as the aforementioned export of its legal framework to as many countries possible. However, although the ECT was envisaged to bring together and combine all the actors and forces of the global energy industry, there are still crucial shortcomings, since the main gas suppliers of the EU such as Russia<sup>12</sup> and Norway haven't ratified it, whereas Algeria and the producers from the Middle East are just observers in the ECT.<sup>13</sup> It is the consuming or transit countries that are the ones showing eagerness to adopt the Treaty rather than the producing states. On the other hand, there is indeed a big gap between the ECT and the EU energy *acquis*. Since the ECT was negotiated by the time of the First EU Energy Directives, it didn't include liberalization notions such as the mandatory Third-Party Access rule. As a consequence, the ECT provides minimum liberalization standards compared to the EU. Furthermore, Russia would never accept the EU energy *acquis*.

### 6.4.1 Investment Promotion Rules

To regulate investments, the Charter distinguishes the pre-investment from the post-investment stage. Providing access to foreign investments is the core of the promotion rules contained in a treaty promoting and protecting such investments. Promoting cross-border investments

---

<sup>10</sup>"The Energy Charter Treaty and Related Documents. A Legal Framework for International Energy Cooperation", Energy Charter Secretariat, 2004, p. 14.

<sup>11</sup>C.P. Speed and T.W. Walde, "Will the Energy Charter Treaty help international energy investors?", UNCTAD/ITE/IIT, Vol. 5, No. 3, 1996, p. 8.

<sup>12</sup>D. Doeh, A. Popov, and S. Nappert, "Russia and the Energy Charter Treaty: Common Interests or Irreconcilable Differences?", 5(2)OGEL, 2007.

<sup>13</sup>C. Bamberger and T. Wälde, "The Energy Charter Treaty", in M. Roggenkamp et al. (eds.), *Energy Law in Europe*, Oxford University Press, 2008.

through market-opening increases investment flows but can also affect the capacity of domestic industry negatively while limiting the host state's regulatory capacity.<sup>14</sup> Under International Law, a state is not obliged to accept any investment in its territory. The economic dimension of state sovereignty enables the state to decide whether to open its borders to foreign investors or to exclude certain areas of economic activity and to determine the conditions to be met for the admission of an investment.<sup>15</sup> However, once an investor is accepted in a host country, the state's obligations vis-à-vis his investment are binding.<sup>16</sup> On the contrary, measures that regulate the entry of foreign investment remain with the host state to take, while protecting investments is not an option.<sup>17</sup> At the pre-investment stage, the ECT seems to follow a restrictive approach, reducing the possibility of integrating energy markets by opening them to foreign investments. The principles of the Charter are those of open markets, such as free access to business and liberalization of trade in energy products.<sup>18</sup> Thus, the ultimate goal of the Charter is to create a liberalized energy market. However, this objective is difficult to achieve without the corresponding liberalization of investments. In the context of accepting an investment, the most common pre-investment rules set by the host state are export quotas, supplies from local producers, as well as the requirement for a local partner to participate in the investment scheme. These measures, which aim at maximizing the benefits for the host country and controlling investments, are clearly in conflict with the intended liberalization of investments and may therefore adversely

---

<sup>14</sup>UNCTAD, Series on International Investment Policies for Development, "Investment Promotion Provisions in International Investment Agreements", UN, New York and Geneva, 2008, pp. 7–9.

<sup>15</sup>R. Dozler and C. Scheuer, *Principles of International Investment Law*, Oxford University Press, 2008, pp. 79–80.

<sup>16</sup>A. Konoplyanik and T. Wälde, "Energy Charter Treaty and its Role in International Energy", *Journal of Energy and Natural Resources Law*, Vol. 24, No. 4, 2006, p. 33.

<sup>17</sup>Th. Papanastasiou, "Protecting Investments in the Hydrocarbons Sector", in *Hydrocarbons Law*, ed. Nick. Farantouris and T. Kosmidis, Law Library, 2015, p. 344.

<sup>18</sup>K. Iliopoulos, "The International Law of Energy", *European State*, 2009, pp. 599–600.

affect potential investment flows.<sup>19</sup> In the present circumstances, where the amendment process of the ECT has been launched, it seems difficult to include pre-establishment phase arrangements in its regulatory field through binding commitments. For the EU, it is not a matter of priority to regulate issues concerning the pre-establishment stage.<sup>20</sup> It does not support the inclusion of investment input in the provisions of the Charter and in the event of a positive outcome of the negotiations, it will oppose to the inclusion of issues that will arise at this stage in the dispute settlement system.<sup>21</sup> Turkey is on the same line that the pre-investment phase should remain outside the provisions of the Treaty. Similarly, Georgia is of the view that the Charter should not cover the pre-investment phase. At the same time, however, Georgia does not oppose the adoption of soft law provisions on issues relating to the pre-establishment stage.<sup>22</sup>

#### 6.4.2 Investment Protection Rules

In accordance with Article 10 (1) of the Charter, “each Contracting Party shall, (...), encourage and create stable, equitable, favourable and transparent conditions for Investors of other Contracting Parties to make Investments in its Area. Such conditions shall include a commitment to accord at all times to Investments of Investors of other Contracting Parties fair and equitable treatment. Such Investments shall also enjoy the most constant protection, and security and no Contracting Party shall in any way impair by unreasonable or discriminatory measures their management, maintenance, use, enjoyment or disposal. In no

---

<sup>19</sup>“Sharing Pre-Investment Rules in the Energy Sector”, A discussion paper for the Energy Charter Expert Meeting removing pre-investment barriers in energy, mobilizing energy investments towards universal access and energy transition, Brussels, 14 June 2016, International Energy Charter, p. 3.

<sup>20</sup>European Commission, Recommendation for a Council Decision authorizing the entering into negotiations on the modernization of the Energy Charter Treaty, Brussels, 14 June 2019, COM(2019) 231, final, p. 2.

<sup>21</sup>Council of the European Union, Negotiating Directives for the Modernisation of the Energy Charter Treaty—Adoption, Brussels, 2 July 2019, 10745/19, p. 5.

<sup>22</sup>Energy Charter Secretariat, Room Document 1 Suggesting Policy Options Regarding the Modernisation of the ECT, 11 July 2019, p. 5.

case shall such Investments be accorded treatment less favourable than that required by international law, including treaty obligations. Each Contracting Party shall observe any obligations it has entered into with an Investor or an Investment of an Investor of any other Contracting Party”. With regard to the first sentence of the above provision, the question is whether it includes an independent standard of treatment or merely it acts as an introduction to the other treatment measures of the article.<sup>23</sup> The jurisprudence of the arbitral tribunals appears divided. In *AES v. Kazakhstan*, the tribunal held that the first sentence of Article 10 (1) is not an autonomous standard of protection. Instead, it has an introductory and programmatic character.<sup>24</sup> The court reached the same conclusion in the case of *Isulux v. Spain*, where, according to the tribunal, the first sentence does not incorporate an independent protection measure.<sup>25</sup> In contrast to the case of *Energoliance v. Moldova*, the tribunal treated the provisions of the first sentence as an independent model of treatment.<sup>26</sup> Beyond the different case-law approaches, the creation of a stable investment environment, as defined in the first sentence, is closely linked to the principle of fair and equitable treatment. This results both from the grammatical wording of the article and its semantic sequence (the use of the term *such as* combining the first with the second sentence shows undoubtedly the relevant interlinking) and the teleological interpretation of the terms. Among the methods of interpretation set out in Article 31 (1) of the Vienna Convention on the Law of Treaties is one which emphasizes the purpose and the object of the Treaty. Article 2 of the Charter provides under the heading “Purpose of the Treaty” that it “establishes a legal framework in order to promote long-term cooperation in the energy field, based on complementarities and mutual benefits”. Thus, the Treaty seeks to enhance the stability

---

<sup>23</sup>C. Verburg, “Modernising the Energy Charter Treaty: An Opportunity to Enhance Legal Certainty in Investor-State Dispute Settlement”, *Journal of World Investment & Trade*, 20 (2019), p. 430.

<sup>24</sup>AES Corporation and Tau Power B.V. v. Republic of Kazakhstan, ICSID Case No. ARB/10/16, Award, 1 November 2003, par. 383.

<sup>25</sup>Isolux Infrastructure Netherlands B.V. v. Spain, SCC V2013/153, Award, 12 July 2016, par. 764.

<sup>26</sup>Energoliance LTD v. The Republic of Moldova, UNCITRAL Arbitration, Arbitral Award, 23 October 2013, par. 356.

required to achieve the intended long-term cooperation.<sup>27</sup> However, the context in which the investment operates and develops is subject to change as it is adapted to new circumstances.<sup>28</sup>

#### 6.4.2.1 Fair and Equitable Treatment

This is an absolute standard, as it is not defined concerning any other level of protection, contrary to the national treatment and the MFN treatment, which are relevant standards of treatment insofar as they are determined by the host State's treatment of domestic investors and foreign investors, respectively. The FET principle has a dominant position in the law of protection of foreign investment. The tribunal's view in *Petrobart v. Kyrgyz Republic* is typical. Article 10 (1) is intended to safeguard the FET as a whole.<sup>29</sup> The tribunal seems to regard the FET clause as a general principle incorporating all the other treatment measures referred to in the article.<sup>30</sup> There is no single and universally accepted definition of the meaning and the content of the principle of FET.<sup>31</sup> The vague and ambiguous expression of "fair" and "equitable" is not defined in the Charter. Therefore, the content of the principle is subject to a variety of interpretations.<sup>32</sup> The arbitral tribunals have concentrated their efforts on attributing the substantive content of the principle which is not equated with the principle of *ex aequo et bono*, but it is a rule of law instead.

---

<sup>27</sup>Eiser Infrastructure Limited and Energia Solar Luxembourg S.A.R.L. and Kingdom of Spain, ICSID Case No. ARB/13/36, Award, 4 May 2017, par. 378.

<sup>28</sup>AES Summit Generation Limited and AES—Tisza Eromukft. v. Republic of Hungary, ICSID Case No. ARB/07/2, Award, 23 September 2010, par. 9.3.29.

<sup>29</sup>*Petrobart Limited v. The Kyrgyz Republic*, Arbitral Award rendered in Stockholm on 29 March 2005, in Arbitration No. 126/2003 of the Arbitration Institute of the Stockholm Chamber of Commerce, p. 76.

<sup>30</sup>C. Schreuer, Selected standards of treatment available under the Energy Charter Treaty, at *Investment Protection and the Energy Charter Treaty*, G. Coop and C. Ribeiro Editors, Arbitration institute of the Stockholm Chamber of Commerce, Juris Net LLC, 2008, p. 65.

<sup>31</sup>S. Schill, *The Multilateralization of International Investment Law*, Oxford University Press, 2009, p. 262.

<sup>32</sup>J. Salacuse, *The Law of Investment Treaties*, Oxford University Press, 2010, pp. 131–132.

Clarifying the constituent elements is an ongoing process where the arbitral tribunals have a crucial role to play. According to an arbitrator, the term is deliberately vague to give arbitrators a quasi-legislative power to formulate the rules necessary to achieve the object and purpose of the treaty in a particular dispute.<sup>33</sup> The decisions of the arbitral tribunals have developed the essential criteria that constitute the concept of FET. It relates to the existence of a stable and transparent legal framework, legitimate expectations, extortion of pressure, denial of justice,<sup>34</sup> legal proceedings, discrimination and manifestly abusive behaviour of the host State.<sup>35</sup> The concept and definition of FET are included in the issues for the amendment of the Charter. The EU is in favour of a clear definition of the principle, based on a closed list of elements that will include those formed by the jurisprudence of the arbitral tribunals referred above. Azerbaijan agrees to add a list of actions that would be considered as a breach to the principle. At the same time, it proposes that the FET principle should be based on the minimum standard of treatment of aliens in accordance with international law. Georgia agrees that the concept of FET should be clarified, but with reference to the minimum standards of international customary law. Thus, any inclusion of a list that defines the concept of authority should be in accordance with the minimum standard of treatment under customary international law.<sup>36</sup> The views of Azerbaijan and Georgia reflect the wider issue of whether the FET principle corresponds to a minimum level of individual rights, as expressed by the minimum standard set by international customary law, or whether it extends beyond customary international law.<sup>37</sup> According to Schreuer, the FET principle is a broader standard of treatment. For example, the measure of transparency extends beyond the traditional international minimum standard of the treatment of aliens.<sup>38</sup> On the contrary, the

---

<sup>33</sup>UNCTAD Series on Issues in International Investment Agreements II, Fair and Equitable Treatment, United Nations New York and Geneva, 2012, pp. 61–62.

<sup>34</sup>Mamidoil Jet Oil Greek Petroleum Products Societe S.A. v. Republic of Albania, ICSID Case No. ARB/11/24, Award 30 March 2015, par. 598–675, 691–735, 742–749, 764–771.

<sup>35</sup>UNCTAD, *Ibid.*, p. 62.

<sup>36</sup>Energy Charter Secretariat, Brussels, 6 October 2019, Decision on the Energy Charter Conference Adoption by Correspondence—Policy Options for Modernization of the ECT, p. 7.

<sup>37</sup>K. Stefanou, C. Gortsos, *International Economic Law*, Law Library, 2005, p. 133.

<sup>38</sup>C. Schreuer, *Ibid.*, p. 88.

approach of Azerbaijan and Georgia significantly limits its scope. At the same time, it contradicts the jurisprudence of the arbitral tribunals, which has expanded and broadened the content of the relevant principle.

#### 6.4.2.2 Legitimate Expectations

Undoubtedly, legitimate expectations are one of the primary expressions of FET. There are two basic approaches to define their content. According to the broad approach, the foreign investor expects the host state to behave in a consistent, clear and transparent manner without any ambiguity, in order for the investor to know in advance both the laws governing the investment and the objectives of the host state so as to plan his investment.<sup>39</sup> This approach leads to a rigid view of the concept of legitimate expectations, which, in essence, undermines the regulatory power of the host state. The investor should be protected from unfair changes, but at the same time, the state should have a reasonable degree of regulatory flexibility to achieve its goals and adapt to the changing conditions. The requirement for fairness does not mean that the legal framework should remain unchanged. What is meant is that any subsequent changes should be made in a fair, consistent and predictable manner, taking the circumstances of the investment into account.<sup>40</sup> In the narrow approach, some elements should be taken into account: first, the specific assurances or commitments made by the host State where the foreign investor has relied on them. Second, the fact that the foreign investor should be aware of the general regulatory framework of the host State. Third, the strike of a balance between the legitimate expectations and the regulatory power of the host state.<sup>41</sup> The legitimate expectations have been analyzed in four recent arbitral awards rendered in cases involving the amendment of the renewable energy legal framework in Spain and Italy. In *Charanne v. Spain*, the tribunal rules that the

---

<sup>39</sup>Tecnic as Medioambientales Tecmeds v. The United Mexican States, ISCID Case No. ARB (AF)/00/2, Award 29 May 2003, par. 154.

<sup>40</sup>ElectrabelS.A v. Hungary, ICSID CASE NO. ARB/07/19, Award 25 November 2015, par. 7.77.

<sup>41</sup>UNCTAD, *Ibid.*, p. 68.



host State's commitments should be made either based on a stabilization clause or through any statement by the state in relation to a particular investor that the existing regulatory framework will not change. Converting a regulatory framework to a specific commitment because of the limited number of people concerned would significantly limit the power of the state to regulate the economy to achieve the public interest. The tribunal held that the decrees at issue did not contain specific commitments to the investors.<sup>42</sup> In *Novenergia v. Spain*, the arbitral tribunal ruled that the commitments and assurances do not need to be specific. If a regulatory framework is designed to attract investments, investors may have a legitimate expectation that this regulatory framework will be stable.<sup>43</sup> On the other hand, *Blusun v. Italy* reaffirmed the need for specific commitments by the State to keep the legal framework unchanged, which was not the case here.<sup>44</sup> It further distinguished between laws that create rights and obligations, contractual commitments, and expectations arising from a relationship. These expectations, even legitimate, are elements that must be taken into account when applying other rules, but they cannot be assimilated to rules.<sup>45</sup> Promises arising from a regulatory regime for the promotion of the investments cannot create legitimate expectations. In *Eiser v. Spain*, the tribunal was in line with the basic premise that in the absence of specific commitments to investors, the State would not change its legal framework. The State may proceed with changes to achieve the public interest. At the same time, however, it clarified that the regulatory power of the State should not undermine the obligations arising from the FET principle. The FET under the Charter protects the investors against the fundamental changes in the regulatory framework when this is done without taking into account the conditions under which the existing investments

---

<sup>42</sup>Charanne B.V., Construction Investments S.A.R.L. v. The Kingdom of Spain, Final Award 21 January 2016, Arbitration No.: 062/2012, par. 490 and 493.

<sup>43</sup>Novenergia II—Energy & Environment (SCA) (Grand Duchy of Luxembourg), SICAR v. The Kingdom of Spain, SCC Arbitration (2015/063), Arbitration Institute of the Stockholm Chamber of Commerce, Final Arbitral Award 15 February 2018, par. 546 and 548.

<sup>44</sup>Blusun S.A., Jean Pierre Lecorcier and Michael Stein v. Italian Republic, ICSID Case No.ARB/14/3, Award 27 December 2016, par. 319(5) and 374.

<sup>45</sup>Ibid., par. 371.

were made.<sup>46</sup> The FET obligation means that a regulatory regime cannot be radically modified in relation to existing investments in the way of damaging these investments.<sup>47</sup> In *Eiser*, the tribunal held that the State measures were substantially different from those in *Charanne*, which had far less drastic consequences.<sup>48</sup> The element of the non-fundamental change in the regulatory framework was also accepted in *Charanne*. According to the tribunal, even where there are no specific commitments, the investor may have legitimate expectations, which in the event of a change in the regulatory framework will not be unreasonably disproportionate or contrary to the public interest. The proportionality test applies when changes are not unnecessary and do not amount to a sudden and unpredictable elimination of the essential features of the existing regulatory framework.<sup>49</sup>

### 6.4.2.3 Expropriation

According to Article 13(1) of the Charter, investments may not be expropriated or subject to measures equivalent to the expropriation unless the expropriation is (1) in the public interest, (2) it is not discriminatory, (3) the legal process is followed and (4) it is accompanied by a prompt, adequate and effective compensation. The use of the term “measures” refers not only to direct but also to indirect modes of expropriation. Direct expropriation consists of the mandatory transfer of a property right of an investor to the State by one or more acts of the domestic law. In the case of the indirect expropriation, the ownership remains intact. The state measures do not entail the transfer of the investment to the state, but they restrict the enjoyment of the investment or substantially limit the investor’s control over his assets. Direct expropriations are now rare. The most usual form of expropriation is the indirect one. Compensation is the most challenging issue concerning expropriation cases. The

---

<sup>46</sup>Eiser Infrastructure Limited and Energia Solar Luxembourg S.A.R.L and Kingdom of Spain, ICSID Case No. ARB/13/36, Award, 4 May 2017, par. 362–363.

<sup>47</sup>Ibid., par. 382.

<sup>48</sup>Ibid., par. 368.

<sup>49</sup>*Charanne v. Spain*, *ibid.*, par. 514 and 517.

Charter uses the terms “prompt, adequate and effective”. These terms usually refer to the concept of “full compensation”. Compensation is prompt when it is paid to the beneficiary without delay; effective when paid in the currency in which the investment funds were imported in the host country, provided that the currency in question is freely convertible, otherwise in the currency chosen by the investor used by the International Monetary Fund. Compensation is adequate when it corresponds to the fair market value of the investment. The Charter accepts the concept of fair market value by stating that the compensation for the expropriation will correspond to the fair market value of the investment expropriated as existed before the expropriation was known.

#### 6.4.2.4 Regulatory Measures and Indirect Expropriation

States should be able to act in the broader public interest by taking measures such as to protect the environment, modify existing tax regimes, change tariff levels and take other similar arrangements. These reasonable state measures would not be taken if an investor who would be adversely affected could claim compensation.<sup>50</sup> In essence, the right of the state to legislate contradicts the strict and rigid nature of foreign investment protection.<sup>51</sup> The right of the state to exercise its regulatory power often violates the right of foreign investors to the peaceful enjoyment of their investments.<sup>52</sup> In *Vattenfell v. Germany*, Vattenfall’s project to build a coal-fired power plant in the city of Hamburg in 2004 had sparked a lot of controversy. Environmental and political groups argued that the plant would be much larger than what was needed to meet Hamburg’s energy needs and thus would unduly burden the environment. Despite the public opposition, the Hamburg authorities entered into a provisional agreement with Vattenfall to build the plant, which included some environmental restrictions on the plant’s impact

---

<sup>50</sup>Marvin Feldman v. United Mexican States, ICSID Case No. ARB(AF)/99/1, Award 16 December 2002, par. 103.

<sup>51</sup>M. Sornarajah, *Resistance and Change in the International Law in Foreign Investment*, Cambridge University Press, 2015, p. 214.

<sup>52</sup>P. Glavinis, *International Economic Law*, Sakkoulas Publications, 2009, p. 638.

on the Elbe River. However, the terms of the agreement were subject to final authorization. Subsequently, the Hamburg Urban Development and Environment Authority issued a preliminary construction permit allowing Vattenfall to proceed with certain aspects of the construction. Final approval was granted in September 2008 and included additional restrictions on the impact of the power plant on the Elbe River. These additional measures were at the heart of the dispute. Hamburg, for its part, argued that the terms of the licence were necessary in order to comply with EU law and the restrictions imposed on all industries in the Elbe River region. At the same time, they were in line with the EU Water Directive, which requires all EU Member States to ensure certain levels of water quality. According to Vattenfall, the relevant conditions were making the plant unworkable beyond what was originally agreed. By imposing stricter conditions at the final permit, Germany had violated the ECT.<sup>53</sup> The ECT refers to indirect expropriation but makes no mention of regulatory measures. The main difference between regulatory measures and indirect expropriation is that the former does not imply an obligation to pay compensation. So, the crucial point is to delineate the boundary between regulatory measures and indirect expropriation.<sup>54</sup> To this effect, three main approaches have been developed. The first is known as the “solo effect doctrine”, according to which the primary criterion for ascertaining expropriation is the impact of the measures. The degree of state intervention is important when considering whether an expropriation occurred or not.<sup>55</sup> Simple intervention by the state is not enough. It should be so restrictive that the investor would be deprived of the control over his investment.<sup>56</sup> The second, known as “policy powers doctrine”, focuses on the purpose and nature of the measures.<sup>57</sup> According to a third approach, both the impact of the

---

<sup>53</sup>N. Bernasconi, Background paper on Vattenfall v. Germany arbitration, International Institute for Sustainable Development, 2009, pp. 1–2.

<sup>54</sup>A. Reinisch, Expropriation at *The Oxford Handbook of International Law*, P. Muchlinski, F. Ortino and C. Schreuer, Oxford University Press, 2008, p. 426.

<sup>55</sup>U. Kriebaum, “Regulatory Takings: Balancing the Interests of the Investor and the State”, *The Journal of World Investment and Trade*, Vol. 8, No. 5, October 2007, p. 723.

<sup>56</sup>P. Glavinis, *ibid.*, p. 639.

<sup>57</sup>M. Brunetti, “Indirect Expropriation in International Law”, *Forum Du Droit International*, Vol. 5, No. 3, August 2003, p. 151.

measures and their character must be taken into account. At the same time, a balance must be struck between the legitimate expectations of the investor and the right of the state to take action for the common benefit.<sup>58</sup> A careful examination of the relevant case-law shows that it is in line with the third approach as a prerequisite for establishing regulatory expropriation: (i) the extent to which investor rights are affected; (ii) the purpose and nature of government measures; and (iii) reasonable investor expectations.<sup>59</sup> The definition of the indirect expropriation and the concept of regulatory measures are among the issues which are mostly discussed in the amendment process of the ECT, where the EU proposes to safeguard the right of the state to exercise its regulatory power to serve the public interest, such as protecting the health and the environment. At the same time, it clarifies that the provisions of the investment protection cannot be regarded as a commitment by the State not to modify its legislation in the future if this has a negative impact on investor's expectations regarding investment profits. Only regulatory measures that are manifestly excessive in the light of their objectives should qualify for an indirect expropriation. Indirect expropriation is established only when the investor is substantially alienated from the fundamental features of his investment. The mere fact that the government measures increase the cost of the investor does not amount to indirect expropriation. The tribunal must conduct a detailed and careful examination prior to determining whether an indirect expropriation has occurred.<sup>60</sup> According to Turkey, the right to regulate should be included in both the preamble to the Treaty and in a separate article specifying it with a non-stabilization clause. Regarding the indirect expropriation, its content could be clarified by establishing criteria referring mainly to the economic impact and the nature of the measures.<sup>61</sup> At this point, Turkey

---

<sup>58</sup>T. Gazzini "Drawing the Line between Non-Compensable Regulatory Powers and Indirect Expropriation of Foreign Investment—An Economic Analysis of Law Perspective", *Manchester Journal of International Economic Law*, Vol. 7, Issue 3, 2010, p. 42.

<sup>59</sup>OECD Working Papers on International Investment, 2004/04, "Indirect Expropriation" and the "Right to Regulate" in *International Investment Law*, p. 22.

<sup>60</sup>Energy Charter Secretariat, Brussels, 6 October 2019, Decision on the Energy Charter Conference Adoption by Correspondence—Policy Options for Modernization of the ECT, pp. 15 and 22.

<sup>61</sup>*Ibid.*, pp. 16 and 23.

differs from the established case-law. Georgia proposes to include separate provisions on regulatory measures that will underline the power of the Contracting States to exercise their legislative and regulatory powers in a non-discriminatory, non-arbitrary and proportionate manner in the pursuit of the public interest. At the same time, it does not oppose to include such a provision in the preamble of the Charter. On the issue of the indirect expropriation, Georgia understands the need to define it by taking into account the prevailing tendency of arbitral tribunals and international investment agreements to avoid conceptual misunderstandings.<sup>62</sup> Finally, Azerbaijan is of the view that a balance between investor rights and the regulatory authority of the state should be preserved. Non-discriminatory measures aimed at serving the public interest such as environmental protection, public health, the safety and the labour rights, should not fall under the scope of indirect expropriation.<sup>63</sup>

## 6.5 Conclusions

The EU is far from getting autonomous on primary energy resources any time soon. It will be for a long time dependent on imports from energy-producing countries laying outside Europe. This is the main reason why the EU promotes market access and free competition in the energy-producing countries and encourages new investments in order to secure an adequate and uninterrupted supply of energy resources at affordable prices from these countries to Europe. The Energy Charter Treaty has secured the effective protection of European investors in many countries of the wider Europe. Its amendment process has been launched, but nobody may predict what will be the outcome. The integration of regional energy markets extending across border with third countries depends on other factors as well. In addition to providing market access to European foreign direct investment in the energy sector, these countries need to harmonize their operating rules in line with the *acquis communautaire*. To achieve this goal, the EU uses various regulatory and

---

<sup>62</sup>Ibid., pp. 15 and 22.

<sup>63</sup>Ibid., pp. 15 and 22.

action tools in order to impose the required degree of harmonization of the operating conditions in these markets. The Energy Community is the most significant one. Moreover, the development of cross-border energy-transportation infrastructure and interconnection networks is a prerequisite for the integration of the energy markets in the wider Europe. Energy markets cannot be integrated unless they are technically interconnected. To this end, the TEN-E Strategy is the primary tool of action adopted by the EU. However, regional energy markets operate within the existing relations between the EU and third countries. These relations are developed in the framework of various partnership and association agreements entered into between the EU and its member states, on the one hand, and third countries concerned, on the other. The implementation of these agreements is affected by the geopolitical conditions prevailing in the regions surrounding Europe. To what extent these conditions allow the integration of the energy markets in the wider Europe and how effective the EU can be in the exercise of energy diplomacy remains to be seen. Unless the EU develops a genuine foreign energy policy and the EU member states allow for the development of such a policy at EU level, no effective regional integration of the energy markets in the wider Europe may occur in the near future.

## References

### Books

- T. Dimitroff and T. Edwards (consulting eds.), *More on Risk and Energy Infrastructure: Value Chains, Stakeholders and Black Swans*, Globe Law & Business, 2017.
- R. Dozler and C. Scheuer, *Principles of International Investment Law*, Oxford University Press, 2008.
- P. Glavinis, *International Economic Law*, Sakkoulas Publications, 2009.
- W. E. Hughes, *Fundamentals of International Oil & Gas Law*, Pennwellbooks, 2016.
- T. Hunter (ed.), *Regulation of the Upstream Petroleum Sector*, Edward Elgar, 2015.

- R. King (ed.), *Arbitration in the International Energy Industry*, Globe Law & Business, 2019.
- P. Martin, B. Kramer, K. Hall, and A. Ritchie, *The Law of Oil and Gas: Cases and Materials*, Foundation Press, 10th ed., 2016.
- M. Peeters, *Renewable Energy Law in the EU*, Edward Elgar, 2014.
- Reinisch, *Standards of Investment Protection*, Oxford University Press, 2008.
- P. Roberts (ed.), *Oil & Gas Contracts*, Sweet & Maxwell, 2016.
- T. Roe, M. Happold (eds.), *Settlement of Investment Disputes under the Energy Charter Treaty*, edited in consultation with James Dingemans, Cambridge University Press, 2011.
- M. Roggenkamp, C. Redgwell, A. Ronne, and I. del Guayo (eds.), *Energy Law in Europe: National, EU and International Regulation*, Oxford University Press, 3rd ed. 2016.
- N. Saint-Paul, *Summers Oil and Gas*, Thomson Reuters, 3rd edition.
- J. Salacuse. *The Law of Investment Treaties*, Oxford University Press, 2010.
- S. Schill, *The Multilateralization of International Investment Law*, Oxford University Press, 2009.
- M. Sorharajah, *Resistance and Change in the International Law on Foreign Investment*, Cambridge, 2015.
- K. Talus, *Introduction to EU Energy Law*, Oxford University Press, 2016.
- K. Talus (ed.), *Research Handbook on International Energy Law*, Edward Elgar, 2015.

## Articles

- N. Bernasconi, Background paper on Vattenfall v. Germany arbitration, International Institute for Sustainable Development, 2009.
- M. Brunetti, “Indirect Expropriation in International Law”, *Forum du droit international*, Vol. 5, No. 3, August 2003.
- T. Gazzini, “Drawing the Line between Non-Compensable Regulatory Powers and Indirect Expropriation of Foreign Investment—An Economic Analysis of Law Perspective”, *Manchester Journal of International Economic Law*, Vol. 7, Issue 3, 2010.
- Konoplyanik and T. Wälde, “Energy Charter Treaty and its Role in International Energy”, *Journal of Energy and Natural Resources Law*, Vol. 24, No. 4, 2006.



- U. Kriebaum, “Regulatory Takings: Balancing the Interests of the Investor and the State”, *The Journal of World Investment and Trade*, Vol. 8, No. 5, October 2007.
- Th. Papanastasiou, “Protecting Investments in the Hydrocarbons Sector”, in *Hydrocarbons Law*, eds. Nick. Farantouris and T. Kosmidis, Law Library, 2015.
- A. Reinisch, Expropriation at the *Oxford Handbook of International Law*, P. Muchlinski. F. Ortino and C. Schreuer (eds.). Oxford University Press, 2008.
- C.P. Speed and T.W. Walde, “Will the Energy Charter Treaty Help International Energy Investors?”, UNCTAD/ITE/IIT, Vol. 5, No. 3, 1996.
- Schreuer, Selected standards of treatment available under the Energy Charter Treaty, at *Investment Protection and the Energy Charter Treaty*, G. Coop and C. Ribeiro Editors, Arbitration Institute of the Stockholm Chamber of Commerce, JurisNetLLC, 2008.
- Verburg, “Modernising the Energy Charter Treaty: An Opportunity to Enhance Legal Certainty in Investor-State Dispute Settlement”, *Journal of World Investment & Trade*, 20 (2019).