THE MEANING OF VICTORY: DAMAGES IN THE SPANISH RENEWABLE ENERGY CASES

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Abstract

The Spanish renewable energy cases are a unique phenomenon in which over 50 investment arbitration cases have been filed based on a common set of legislative measures modifying and repealing the regulatory regime created under Royal Decree 661/2007. A majority of published awards have been decided in favour of investors, yet quantum determinations in these cases vary significantly. This article analyses the Spanish renewable energy cases from a damages' perspective, aiming to find similarities and differences as to how these tribunals calculate damages. In doing so, it answers the following key questions: What different conclusions do tribunals reach regarding quantum? Why do they reach such conclusions? What parameters do tribunals take into account? Do determinations regarding such parameters affect the damages awarded? The findings on quantum can turn a case decided in favour of the investor into a pyrrhic victory. This proposition is showcased uniquely well in the Spanish context since all these cases share a common legislative canvas.

I. Introduction

The Spanish cases on renewable energies ["**Spanish Cases**"] have had a decisive impact on the arbitration landscape in Spain. Over 50 investment arbitration cases amounting to an aggregate 7.5 to 8 billion Euro have been filed on the basis of a single legislative measure, the Royal Decree 661/2007,[1] and a single treaty, the Energy Charter Treaty ["**ECT**"]. This is a unique phenomenon in investment arbitration altogether.

While much has been written about these cases, the present article aims to analyse them not from the perspective of merits, but that of quantum. As the author will examine over the course of this article, the facts surrounding most of the Spanish Cases pose some very interesting questions relating to damages; for instance, have all awards reached similar conclusions when it comes to damages? If not, how have particular assumptions regarding key valuation parameters influenced final determinations on quantum? And how do such parameters interact with each other?

This article aims to answer some of these questions. At the outset, this article provides a primer on damages **[Part II]**, and then briefly presents the sequence of legislative reforms that led to Spain's investment arbitration debacle **[Part III]**. It subsequently analyses some of the most

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1 Names of Spanish norms will be cited using the following abbreviations: (i) "OM" stands for Orden Ministerial, a statutory regulation adopted by ministerial departments (in this case the Ministry of Industry, Energy and Tourism), (ii) "R.D." stands for Real Decreto, a statutory norm emanating from the government complementing or developing laws, (iii) "R.D.L" or "R.D.-Ley" stands for Real Decreto Ley, a norm emanating from the government with the force of law. This norm can theoretically only be adopted in cases of "extraordinary and urgent necessity" and has to be validated ex post by parliament, and (iv) "Ley" or "Law" means a statutory rule with force of law emanating from the legislative power.

interesting decisions regarding quantum **[Part IV]**. Finally, it draws conclusions as to how tribunals have decided on quantum in the Spanish Cases and to what extent the consideration of specific valuation parameters influenced the damages awarded **[Part V]**.

II. A primer on damages

While this article does not aim to explain in detail how damages are calculated in investment arbitration, it will review some of the basic principles and practices, which might help understand the reasoning of the tribunals in the Spanish Cases.

First, we should keep in mind that in all cases decided in favour of the investor, tribunals found the State to be in breach of the fair equitable treatment standard ["**FET**"] contained in Article 10(1) of the ECT. The ECT does not, however, contain rules on compensation for breaches of such standard.[2] Accordingly, tribunals assess damages on the basis of customary international law. Under such standard, damages aim to repair the consequences of a breach or unlawful act. As such, the principle of *restitutio in integrum* is prevalent. As stated by the Permanent Court of International Justice in the oft-cited, *Factory at Chorzów (Germany* v. *Poland)* ["**Factory at Chorzów**"], "*reparation must, as far as possible, wipe out all the consequences of the illegal act and reestablish the situation which would, in all probability, have existed if that act had not been committed.*"[3] Article 31.1 of the International Law Commissions' Articles on State Responsibility ["**Articles on State Responsibility**"] further establishes that "*[t]he responsible State is under an obligation to make full reparation for the injury caused by the internationally wrongful act.*"[4] As stated by some tribunals, such as *Lemire* v. *Ukraine*, this requires compensating as per Article 36.2 of the Articles on State Responsibility, i.e., "*any financially assessable damage including loss of profits insofar as it is established.*"[5]

In order to implement this basic principle in the calculation of damages, as put by Irmgard Marboe, "*[i]t is necessary to create a hypothesis to how the financial situation of the injured party 'in all probability' would be in the absence of the unlawful act. Then this hypothetical situation must be compared with his or her actual situation.*"[6] This must, however, be translated into a valuation method.

Marboe describes two main categorizations of valuation methods, *first*, the so-called subjective-concrete valuation, which requires methods reflecting the concrete loss incurred by the concerned person, not being primarily oriented to determine the market value as a basis for damages and, *second*, the abstract-objective valuation, which requires determining the market value of the investment be it through stock prices, multiples, or, more notably, the Discounted Cash Flow ["**DCF**"] method.[7] As we will explore below, the latter DCF method has been more widely used

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2 In fact, the Energy Charter Treaty (ECT) only contains rules on compensation for expropriation contained in Article 13(1) of the ECT.

3 Factory at Chorzów (Ger. v. Pol.), Judgment, 1928 P.C.I.J. (ser. A) No. 17, at 47 (Sept. 13, 1928). According to the Factory at Chorzów case, restitution as a payment of a sum compensating for the loss should only be granted if restitution in kind is not possible.

4 Int'l Law Comm'n, Draft Articles on the Responsibility of States for Internationally Wrongful Acts with Commentaries on its Fifty-Third Session, U.N. Doc. A/56/10 (2001), *reprinted in* [2001] 2 Y.B. INT'L COMM'N 30, 107, U.N. Doc. A/CN.4/SER.A/2001/Add.1, art. 31.1.

5 Joseph Charles Lemire v. Ukraine (II), ICSID Case No. ARB/06/18, Award, ¶ 151 (Mar. 28, 2011).

6 IRMGARD MARBOE, CALCULATION OF COMPENSATION AND DAMAGES IN INTERNATIONAL INVESTMENT LAW 38 (2d. 2017) [*hereinafter* "MARBOE"].

7 *Id.* at 40–41.

in the Spanish Cases[8] and will be the only valuation method that the author will now address in some detail.

According to this methodology, damages are calculated as a difference between the cash flows the investment would have generated without the breach of a given treaty (the so-called "*But-For scenario*") and the cash flows received in reality (the real scenario). The calculation of both scenarios requires a forecasting exercise in which, *inter alia*, past performance, company's business plans, value drivers, and economic circumstances[9] are considered in order to estimate the future cash flows the investment would have generated both with and without (i.e., But-For) the treaty breach. The results of both scenarios are then compared with each other at a given point in time in order to assess damages.[10]

While the calculation of an asset's value using DCF is a complex and case-specific matter, the general formula used to calculate, for example, a company's current value of equity is as follows:

$$\text{Current Value}=CF_1/(1+r)^1+CF_2/(1+r)^2+\ldots+CF_n/(1+r)^n+TV_n/(1+r)^n$$

Thus, the current equity value calculated using DCF is the sum of projected cash flows (CF_1 to CF_n) discounted at the discount rate (r),[11] adding the discounted terminal value ["**TV**"] on top of it. As stated by Marboe, depending on the specificities of the case, TV can either be the going concern value, if there are future prospects for the investment or the liquidation value.[12]

Having explained the foregoing, the author will now address the legislative change that prompted many tribunals to reach the conclusion that Spain had breached the FET standard contained in the ECT. This will help us understand how tribunals have applied this theoretical framework to the facts surrounding the Spanish Cases.

III. What happened? Spain's legislative framework

A. Spain's legislative framework (2007)

The regime created by R.D. 661/2007 does not exist in a vacuum but was preceded by several legislative steps aiming to make investment in the renewable energy sector more attractive. The author will present them briefly below.

8 In fact, as the author will explain later, they have found only one case which does not use the DCF method for valuation purposes.

9 MARBOE, *supra* note 6, at 244–256.

10 *Id.* at 256.

11 *Id.* at 262–264. As stated by Marboe, the discount rate incorporates the systematic (market or diversifiable) risk. The undiversifiable or company specific risk is incorporated into the Cash Flow calculation. The so-called Weighted Average Cost of Capital (WACC) is often used as a discount rate. WACC incorporates two elements: Cost of Debt, usually the market rate a given company is paying on its debt, and Cost of Equity which can broadly be described as the return shareholders can expect to receive from their investment in the company. The calculation of the Cost of Equity is one of the trickier parts of the DCF analysis, requiring an extensive explanation of the Capital Asset Pricing Model (CAPM). Addressing this here would exceed the scope of this article. Lastly, the calculation of WACC requires multiplying the cost of each capital source by its relevant weight, then adding both products together.

12 *Id.* at 260. In the Spanish cases on renewable energies, as discussed in Part IV of this article, plants were deemed to have a specific operational lifetime, taken into account for valuation purposes.

The inception of a "*special regime*" applicable to *inter alia* renewable energy plants is found in Article 27 of the Law of the Electrical Sector, 1997 ["**LSE 1997**"],[13] Article 28 whereof further established that such plants may enjoy a different treatment according to their "*particular specificities.*"

While renewable energy production was marginal at that point in time, this was set to change in 2001, when, as a result of European Union ["**EU**"] Directive 2001/77/EC, Spain acquired a specific commitment with the EU to bring renewable energy production to encourage greater consumption of electricity produced from renewable energy sources.[14] In particular, Member states acquired an obligation to adopt and publish a report setting national indicative targets for renewable energy consumption; the European Commission being tasked with assessing the consistency of these targets with the global indicative target of 12 per cent of gross national energy consumption.[15]

In 2004, Spain undertook specific reforms to comply with these objectives, starting with the enactment of R.D. 436/2004, which established that companies under the special regime would be able to sell energy: (1) by ceding it to the distributor company at a fixed regulated price;[16] or (2) by selling the energy freely in the market receiving an incentive[17] and a premium[18] on top of the obtained price. These measures did not, however, have the intended effect as the incentives they provided were considered to be too low and fluctuating to attract meaningful investments.[19]

In 2005, pursuant to *inter alia* EU Directive 2001/77/EC, Spain introduced the "*Renewable Energies Plan in Spain 2005–2010*" ["**PER**"],[20] which established an ambitious objective of bringing renewable to constitute 29.4 per cent of total production by 2010.[21] Importantly, however, this plan also mentioned the concept of "*the rate return of a typical or model plant,*" which was situated at an Internal Rate of Return ["**IRR**"] of around seven per cent.[22] As the author will examine infra, this concept would be of key importance, given that the 2013 regime would be based on the expected return of a "*typical facility.*"

To achieve its objective, the Spanish Government passed its "*star*"-reform, which effectively constitutes the basis for all investment claims against Spain: R.D. 661/2007.[23] This norm created a stable incentive system which guaranteed high returns for producers under the special regime, *inter alia*, renewable energy producers, who enjoyed the following:

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13 Law of the Electrical Sector (B.O.E. 1997, 285) (Spain).

14 Council Directive 2001/77/EC, art. 3, 2001 O.J. (L 283) 33 (EC).

15 *Id.* art. 3(4).

16 R.D. 436/2004, Establishing the Methodology for Updating and Systematising the Legal and Economic Regime of Electric Energy Production in the Special Regime art. 22 (B.O.E. 2004, 75) (Spain).

17 *Id.* art. 25.

18 *Id.* art. 24.

19 General Secretariat of Energy, Directorate General for Energy Policy and Mines, *La Energía en España 2004*, at 115, table 8.5, *available at* https://energia.gob.es/balances/Balances/LibrosEnergia/Energia_2004.pdf. It should be noted that the Spanish Supreme Court issued various decisions upholding the legality of the reforms contained in Royal Decree 463/2004. The Supreme Court thus indicated that legislative change in the renewable energy compensation scheme was possible.

20 This Plan was a revised version of the earlier "Renewable Energies Plan in Spain 2000-2010."

21 The Instituto para la Diversificación y Ahorro de la Energía (IDAE), Plan de Energías Renovables en España 2005–2010 (Aug. 8, 2005), at 7.

22 *Id.* at 274.

23 R.D. 661/2007, Regulating Electricity Production Under the Special Regime (B.O.E. 2007, 126) (Spain).

- A priority access to the grid.[24]

- An option to either sell their electricity at a fixed rate (fixed option) or at a variable price (variable option) with the possibility of obtaining a premium on top of the market price.[25] If the market price was high enough to cover production costs, the premium would not be paid (upper limit), it would be paid, however, if the market price fell below a certain threshold (lower limit).

- A guarantee that this incentive system would be applicable for the entire operational lifetime of each facility.[26]

Shortly after the enactment of the R.D. 661/2007, the LSE 1997 was amended,[27] and in 2008 the *Instituto para la Diversificación y Ahorro de la Energía* (IDAE) further tried to attract investors by issuing a pamphlet under the slogan "*the sun can be yours.*"[28]

B. Spain's legislative framework (2013)

These measures were very successful in attracting investors. As a result, by 2010, renewable energies had become an important source of energy production in Spain.[29] At the same time, however, these measures led to the accumulation of an enormous tariff deficit. Tariff deficit can be defined as the (negative) difference between the regulated price a given utility producer is allowed to charge (the so-called tariff) and its cost per unit.[30] Such deficit "*is accumulated due to the fact that the regulated tariffs which should cover the systems' operating costs, including e.g., support to renewables, are either set too low or not allowed to increase at a pace that covers rising production or service costs.*"[31]

Under the circumstances of the 2008 crisis, the Spanish Government sought to control this gaping tariff deficit and, consequently, modified the regime created by the R.D. 661/2007. For the purpose of damages, it is critical to understand that the 2007 regime was not repealed immediately by a single measure. Instead, a plethora of measures slowly cut back on the benefits provided by the R.D. 661/2007 from 2009 to 2013 and only then, from 2013 to 2014, was it abolished completely.

As explained in Part IV.B, this opens an interesting debate as to which measure exactly was the one that *broke the camel's back,* leading to a potential infringement of the FET standard. This had a crucial impact on damages assessment, which is why we will now briefly present the chronology

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24 *Id.* art. 17(e).

25 *Id.* art. 24(1).

26 Under article 44(1) of R.D. 661/2007 tariffs and premiums, as well as the upper and lower limits would be adjusted by reference to fuel price indexes and the Consumer Price Index (CPI). Furthermore, article 44(3) provided that from 2010 onwards all these elements would be reviewed, however a "reasonable return" would always be guaranteed.

27 Law 17/2007, modifying Law 54/1997 of the Electrical Sector, to Adapt it to Parliament and Council Directive 2003/54/CE concerning Common Rules for the Internal Market in Electricity (B.O.E. 2007, 160) (Spain).

28 While not critical to the calculation of damages, this pamphlet was later used by investors to prove the State's representations to them.

29 The Instituto para la Diversificación y Ahorro de la Energía (IDAE), Resumen del Plan de Energías Renovables 2011–2020 (July 26, 2011), at 5–6, figures 2.1 & 2.2. By 2010 renewable energies represented 13.2 per cent of total energy consumption and 33.3 per cent of total electric production.

30 Alan V. Deardorff, *Deardorffs' Glossary of International Economics*, UNIV. MICH., *available at* http://www-personal.umich.edu/~alandear/glossary/t.html.

31 Asa Johannesson Linden, Fotios Kalantzis, Emmanuelle Maincent & Jerzy Pienkowski, *Electricity Tariff Deficit: Temporary or Permanent Problem in the EU?*, EUROPEAN ECONOMY, ECONOMIC PAPERS 534 7 (2014).

of events that led to the eventual repeal and substitution of the framework created by R.D. 661/2007.[32]

The first measure affecting the 2007 regime was R.D.L. 6/2009, which sought to create mechanisms to finance the tariff deficit and created a registration mechanism for plants under the special regime.[33] Access to the tariffs and premiums of R.D. 661/2007 was made dependent on the fulfilment of certain administrative and financial conditions.[34]

In 2010–2013 several measures were introduced; these, while still altering the 2007 regime, did not go as far as the later 2013–2014 measures. Tribunals often referred to these as "*Regulatory Framework II*." These were as follows:

- R.D.L. 1614/2010,[35] limited the amount of equivalent working hours being eligible to receive a premium for wind and thermoelectric plants.[36] R.D.L. 14/2010,[37] did the same thing for solar power plants.

- R.D. 1565/2010,[38] partially amended R.D. 661/2007, establishing further technical requirements in order to "*guarantee the functioning of the system*"[39] and limiting the number of years during which photovoltaic plants would be subject to the regulated tariffs under R.D. 661/2007 to twenty five.[40]

- Fiscal Measures for Energy Sustainability Law 2012[41] ["**FMES 2012**"] imposed a seven per cent tax on the total value of all energy introduced into the national grid by all producers.

- R.D.L. 1/2012,[42] made the incentives created by RD 661/2007 inapplicable to unregistered and new plants[43] and suspended registration of new facilities with the pre-assignment registry.[44]

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32 This does not aim to be a complete compendium of all measures affecting the regime created under R.D. 661/2007, but merely covers some of the most important norms.

33 R.D.L. 6/2009, Approving Specific Measures in the Energy Sector and the Social Bonus (B.O.E. 2009, 111), arts. 1 & 4 (Spain).

34 *See, e.g., id.* art. 4.2.

35 R.D. 1614/2010, Regulating and Amending Certain Aspects Regarding Electricity Generation Using Solar Thermoelectric and Wind (B.O.E. 2010, 298) (Spain).

36 *Id.* art. 2. This article includes a chart stating how many yearly hours have a right to a premium for each installation type. If a given plant functions beyond those hours, the electricity produced in those additional operation hours will be barred from receiving a premium.

37 R.D.L. 14/2010, Establishing Urgent Measures for the Correction of the Tariff Deficit in the Electricity Sector (B.O.E. 2010, 312) (Spain).

38 R.D. 1565/2010, Regulating and Amending Certain Aspects Related to the Activity of Generating Electricity Under the Special Regime (B.O.E. 2010, 283) (Spain).

39 *Id.* Exposición de motivos.

40 *Id.* art 3.

41 Fiscal Measures for Energy Sustainability Law, art. 8, B.O.E. 2012, 312 (Spain).

42 R.D.L. 1/2012, Suspending the Procedures for Pre-Allocation of Remuneration and Abolishing Economic Incentives for New Installations For the Production of Electrical Energy From Cogeneration, Renewable Energy Sources and Waste (B.O.E. 2012, 24) (Spain).

43 *Id.* art. 3.

44 *Id.* art. 4.

- R.D.L. 2/2013 modified the remuneration scheme under the variable option.[45] Some investors found that this change constituted an effective elimination of such option.[46]

In 2013–2014, the most far-reaching measures were implemented. These measures were collectively referred to as "*Regulatory Framework III*" by many tribunals, which largely considered these measures to breach FET:

- R.D.L. 9/2013[47] repealed R.D. 661/2007,[48] substantially changing the incentive system for renewable energies, creating a system providing "*specific remuneration*" based on "*standard costs*" per unit of power plus "*standard operating costs*" of a "*typical plant,*" the latter term being defined as "*an efficient and well-managed company.*"[49] It aimed to offer producers a "*reasonable return.*"[50]

- Law of the Electrical Sector, 2013 ["**LSE 2013**"][51] superseded L.S.E 1997, formally eliminating the distinction between the ordinary and the special regimes. Some investors also argued that this Law eliminated the priority access to the grid and priority of dispatch that producers under the special regime had enjoyed until then.[52]

Spain further carried out the implementation of LSE 2013 in 2014 via the following measures:

- R.D. 413/2014,[53] defined the concept of the *typical facility,*[54] establishing criteria to apply the new remuneration regime to each installation type and explaining in detail how such remuneration should be calculated.

- O.M. IET/1045/2014,[55] which established remuneration parameters for renewable energy producers. It further set out that the reasonable rate of return under R.D.L. 9/2013 amounted to an IRR of 7.398 per cent, which was later updated to 7.09 per cent. Note that this metric was, in fact, very similar to that provided by the PER back in 2005. Furthermore, this figure of an IRR of 7.398 per cent influenced the findings on the merits and quantum of many tribunals.

Importantly, the new regime created in 2013–2014 established that past payments made under the 2007 regime would be taken into account in order to calculate the subsidies to be perceived under

45 R.D.L. 2/2013, On Urgent Measures in the Electrical System and the Financial Sector (B.O.E. 2013, 29), art. 2 (Spain).
46 *See, e.g.,* Infrastructure Services Luxembourg S.à.r.l. and Energia Termosolar B.V. (formerly Antin Infrastructure Services Luxembourg S.à.r.l. and Antin Energia Termosolar B.V.) v. Kingdom of Spain, ICSID Case No. ARB/13/31, Award, ¶ 144 (June 15, 2018) [*hereinafter* "Antin"].
47 R.D.L. 9/2013, Adopting Urgent Measures For Guaranteeing the Financial Stability of the Electricity System (B.O.E. 2013, 167) (Spain).
48 *Id.* Disposición derogatoria única.
49 *Id.* art. 1.2.
50 *Id.* Disposición adicional primera.
51 Law of the Electrical Sector (B.O.E. 2013, 310), art. 6 (Spain).
52 *See, e.g.,* Antin, ICSID Case No. ARB/13/31, Award, ¶ 150 (June 15, 2018) *citing* Law of the Electrical Sector (B.O.E. 2013, 310), art. 26.1 (Spain).
53 R.D. 413/2014, Regulating the Activity of Electricity Production From Renewable Energy, Cogeneration and Waste (B.O.E. 2014, 140) (Spain).
54 *Id.* art. 13.
55 O.M. IET/1045/2014, Approving the Remuneration Parameters For Standard Facilities, Applicable To Certain Electricity Production Facilities Based On Renewable Energy, Cogeneration and Waste (B.O.E. 2014, 150) (Spain).

the new regime. As explained by the Tribunal in *RREEF Infrastructure (G.P.) Ltd. and RREEF Pan-European Part IV Infrastructure Two Lux S.à r.l.* v. *Kingdom of Spain* [“**RREEF**”][56] and further expounded by the Tribunal in the *BayWa r.e. Renewable Energy GmbH and BayWa r.e. Asset Holding GmbH* v. *Spain* [“**BayWa**”], these measures have “*the effect of clawing back remuneration to which the investor had a right at the time the payment was made,*”[57] such retroactivity applying since the day of the enactment of R.D.L. 9/2013.[58]

Having analysed the Spanish legislative framework and its evolution, the author will analyse arbitral precedents on the matter, focusing on how tribunals calculated costs based on these facts in Part IV of this article.[59]

IV. The Spanish cases on renewable energies

An analysis on every single parameter used by each tribunal in the Spanish Cases to determine damages would far surpass the scope of this article. Instead, this article focuses on some overarching discussion points analysed by close to all tribunals, namely: (i) the choice of valuation method, (ii) the determination of which measures constituted a violation of the ECT, (iii) the assessment of the valuation date, (iv) the acceptance of historic losses (or lack thereof),[60] and (v) the expected lifetime of the plants.[61]

All of these parameters have a key impact on valuation in general, and DCF calculation in particular (as explained in our in Part II): (i) affects the very method used to calculate damages, different valuation methods being susceptible of yielding different results; (ii) establishes which measures should be taken into account in the calculation of the But-For Scenario and which shouldn’t, accordingly affecting, for example, the calculation of cash flows, (iii) sets the point in time in which damages should be calculated, affecting both, the condition of the investment and the information available to determine its value, (iv) entails analysing whether damages prior to the valuation date should be considered, and (v) establishes the overall timeline for the calculation and the amount of cash flows to consider. Having stated this, the author analyses the Spanish Cases in the following sub-Parts.

A. The valuation method used

As mentioned earlier, DCF is the valuation methodology most widely used in the Spanish Cases. However, its application has been a contentious issue.

In a substantial number of cases, Spain made an argument that the DCF methodology should not be used, alleging, *inter alia*, that given the long life cycles of the plants, such method would offer

56 RREEF Infrastructure (G.P.) Ltd. and RREEF Pan-European Infrastructure Two Lux S.à r.l. v. Kingdom of Spain, ICSID Case No. ARB/13/30, Decision on Responsibility and on the Principles of Quantum, ¶¶ 328–329 (Nov. 30, 2018) [*hereinafter* “RREEF”].

57 BayWa r.e. Renewable Energy GmbH and BayWa r.e. Asset Holding GmbH v. Kingdom of Spain, ICSID Case No. ARB/15/16, Decision on Jurisdiction, Liability and Directions on Quantum, ¶ 495 (Dec. 2, 2019) [*hereinafter* “BayWa”].

58 BayWa, ICSID Case No. ARB/15/16, Jurisdiction, Liability and Directions on Quantum, ¶ 335 (Dec. 2, 2019); BayWa, ICSID Case No. ARB/15/16, Award, ¶¶ 19–20 (Jan. 25, 2021).

59 The author will focus his analysis on cases decided in favor of the investor, since cases won by the state (*inter alia* Charanne, Isolux and Stadtwerke München) did not award any damages to investors.

60 As we will see, points (iii) and (iv) are closely related.

61 Moreover, the author will not be analyzing each single case (many of the Spanish renewable energies cases still being pending). Instead, he will analyze the cases contained in *infra* Table 1.

"*a high level of uncertainty*"[62] and that the use of this methodology would be contrary to relevant decisions of the Spanish Supreme Court.[63] Furthermore in some cases such as *Masdar Solar & Wind Cooperatief U.A.* v. *Kingdom of Spain* ["**Masdar**"],[64] *Infrastructure Services Luxembourg S.à.r.l. and Energia Termosolar B.V. (formerly Antin Infrastructure Services Luxembourg S.à.r.l. and Antin Energia Termosolar B.V.)* v. *Kingdom of Spain* ["**Antin**"],[65] and *Watkins Holdings S.à r.l.* v. *Kingdom of Spain* ["**Watkins Holdings**"],[66] Spain argued that the lack of a sufficient financial record for the plant made a cash flow projection untenable. Accordingly, Spain found that an investment-based valuation method should be used instead of DCF.[67] Such a valuation method entails finding the value of different component parts, with their sum determining the value of the overall object. In order to do this, all assets and liabilities are revalued to their current values, with the difference between assets and liabilities being the value of the object.[68]

Spain's arguments in favour of using an investment-based valuation method were, for the most part, dismissed by the tribunals.[69] Most of them gave special weight to the widespread acceptance of the DCF method (both in professional literature and by arbitral tribunals),[70] further finding that the financial record of the plants was generally sufficient to establish sound cash flow projections.[71] As explained in *Eiser Infrastructure Ltd. and Energía Solar Luxembourg S.à r.l.* v. *Kingdom of Spain* ["**Eiser**"],[72] *Masdar*,[73] and *Watkins Holdings*,[74] renewable energy power plants rely on a simple

62 Eiser Infrastructure Ltd. and Energía Solar Luxembourg S.à r.l. v. Kingdom of Spain, ICSID Case No. ARB/13/36, Final Award, ¶ 436 (May 4, 2017) [*hereinafter* "Eiser"]. *See also* Antin, ICSID Case No. ARB/13/31, Award, ¶ 597 (June 15, 2018).

63 Antin, ICSID Case No. ARB/13/31, Award, ¶ 593 (June 15, 2018); BayWa, ICSID Case No. ARB/15/16, Decision on Jurisdiction, Liability and Directions on Quantum, ¶ 604 (Dec. 2, 2019); Novenergia II - Energy & Environment (SCA) (Grand Duchy of Luxembourg), SICAR v. Kingdom of Spain, SCC Case No. 2015/063, Final Award, ¶ 773 (Feb. 15, 2018) [*hereinafter* "Novenergia"].

64 Masdar Solar & Wind Cooperatief U.A. v. Kingdom of Spain, ICSID Case No. ARB/14/1, Award, ¶ 539 (May 16, 2018) [*hereinafter* "Masdar"].

65 Antin, ICSID Case No. ARB/13/31, Award, ¶ 619 (June 15, 2018).

66 Watkins Holdings S.à r.l. v. Kingdom of Spain, ICSID Case No. ARB/15/44, Award, ¶¶ 658–660 (Jan. 21, 2020) [*hereinafter* "Watkins Holdings"].

67 *See, e.g.,* Masdar, ICSID Case No. ARB/14/1, Award, ¶ 571 (May 16, 2018); Antin, ICSID Case No. ARB/13/31, Award, ¶ 609 (June 15, 2018); BayWa, ICSID Case No. ARB/15/16, Decision on Jurisdiction, Liability and Directions on Quantum, ¶ 606 (Dec. 2, 2019).

68 MARBOE, *supra* note 6, at 201–202.

69 Novenergia, SCC Case No. 2015/063, Final Award, ¶¶ 817–818, 820 (Feb. 15, 2018); Eiser, ICSID Case No. ARB/13/36, Final Award, ¶ 465 (May 4, 2017); Foresight Luxembourg Solar 1 S.Á.R1., et al. v. Kingdom of Spain, SCC Case No. 2015/150, Final Award, ¶ 477 (Nov. 14, 2018) [*hereinafter* "Foresight"].

70 Novenergia, SCC Case No. 2015/063, Final Award, ¶ 818 (Feb. 15, 2018); Eiser, ICSID Case No. ARB/13/36, Final Award, ¶ 465 (May 4, 2017); Foresight, SCC Case No. 2015/150, Final Award, ¶ 478 (Nov. 14, 2018); PV Investors v. Spain, PCA Case No. 2012-14, Final Award, ¶¶ 691–692 (Feb. 28, 2020) [*hereinafter* "PV Investors"].

71 Novenergia, SCC Case No. 2015/063, Final Award, ¶ 820 (Feb. 15, 2018) (operating history of 8 years); Masdar, ICSID Case No. ARB/14/1, Award, ¶ 581 (May 16, 2018) (operating history of less than 5 years); PV Investors, PCA Case No. 2012-14, Final Award, ¶ 691 (Feb. 28, 2020); InfraRed Environmental Infrastructure GP Ltd. v. Kingdom of Spain, ICSID Case No. ARB/14/12, Award, ¶ 535 (Aug. 2, 2019) [*hereinafter* "InfraRed"]; Cube Infrastructure Fund SICAV and others v. Kingdom of Spain, ICSID Case No. ARB/15/20, Decision on Jurisdiction, Liability and Partial Decision on Quantum, ¶ 478 (Feb. 19, 2019) [*hereinafter* "Cube"].

72 Eiser, ICSID Case No. ARB/13/36, Final Award, ¶ 465 (May 4, 2017). The Eiser Award was annulled on the grounds of improper constitution of the arbitral tribunal and serious departure from a fundamental rule of procedure. This had mainly to do with the existence of undisclosed ties between claimant's appointed arbitrator and claimant's quantum experts. While this is a fundamental development, we believe that the Tribunal's findings on merits and quantum still are useful for our analysis.

73 Masdar, ICSID Case No. ARB/14/1, Award, ¶ 582 (May 16, 2018).

74 Watkins Holdings, ICSID Case No. ARB/15/44, Award, ¶ 689 (Jan. 21, 2020).

business model, generating energy pursuant to mostly stable parameters. As put by *Foresight*, the DCF model suits "*the PV industry because of the predictability of PV facilities*."[75]

Novenergia II - Energy & Environment (SCA) (Grand Duchy of Luxembourg), SICAR v. *Kingdom of Spain* ["**Novenergia**"] further mentions that the DCF methodology was particularly well-suited for assessing regulated businesses such as the one at hand.[76] This reinforced the idea that even with a limited financial record, it was possible to estimate the plant's future cash flows accurately.

Lastly, the tribunals found that the Spanish Supreme Court's judgements on the matter were "*irrelevant and of no assistance to the evaluation of damages,*"[77] given that the tribunals rely on and have to assess damages on the basis of international law.[78]

An interesting exception to the foregoing is *NextEra Energy Global Holdings B.V. and NextEra Energy Spain Holdings B.V.* v. *Kingdom of Spain* ["**NextEra**"]. In this case, the Tribunal found that, given the extremely limited financial record (the plants had been in operation for less than a year), it was improper to use the DCF method.[79] Therefore, damages had to be assessed on the basis of the investment-based methodology instead.[80] The Tribunal concluded that "*Claimants are entitled to damages based on a return on the capitalized value of their assets as of 30 June 2016 on the basis of the [Weighted Average Cost of Capital] ["**WACC**"] of the Termosol Plants plus a premium of 200 bps.*"[81]

All in all, it is clear that, despite the exceptions such as *NextEra*, tribunals have preferred the DCF method over investment-based methods.[82] *Novenergia* is especially clear in stating that the DCF method is considered by many as the "*preferred method for valuation of income-earning assets.*"[83] Having established this, the author will now examine how tribunals have applied the DCF methodology in the Spanish Cases.

B. Measures breaching the FET standard and the date of the breach

As explained in Part II, providing general explanation of damages, the calculation of damages requires the comparison between the real scenario and the scenario "*But-For*" the treaty breach. Now, the question is what exactly constituted a breach of the ECT in the eyes of the Tribunals?

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75 Foresight, SCC Case No. 2015/150, Final Award, ¶ 478 (Nov. 14, 2018).

76 Novenergia, SCC Case No. 2015/063, Final Award, ¶ 820 (Feb. 15, 2018); Similarly, Cube, ICSID Case No. ARB/15/20, Decision on Jurisdiction, Liability and Partial Decision on Quantum, ¶ 478 (Feb. 19, 2019) ("[The Tribunal] considers that this method [DCF], now well established in the practice of international investment tribunals, is appropriate in the present case. The Claimants' analysis focuses on the performance of specific plants which had an operating history, even if relatively short, in a highly-regulated industry; and it addresses the specific impact of the disputed measures in terms of the loss of cash flows to those plants.").

77 Novenergia, SCC Case No. 2015/063, Final Award, ¶ 819 (Feb. 15, 2018). *See also* Masdar, ICSID Case No. ARB/14/1, Award, ¶¶ 579–580 (May 16, 2018); Eiser, ICSID Case No. ARB/13/36, Final Award, ¶ 465 (May 4, 2017).

78 Novenergia, SCC Case No. 2015/063, Final Award, ¶ 819 (Feb. 15, 2018).

79 NextEra Energy Global Holdings B.V. & NextEra Energy Spain Holdings B.V. v. Kingdom of Spain, ICSID Case No. ARB/14/11, Decision on Jurisdiction, Liability and Quantum Principles, ¶¶ 643–647 (Mar. 12, 2019) [*hereinafter* "NextEra"].

80 *Id.* ¶ 650.

81 *Id.* ¶ 678.

82 Even *NextEra* recognized that the DCF methodology "is frequently invoked in investor-State arbitrations and has been applied by Tribunals." *See* NextEra, ICSID Case No. ARB/14/11, Decision on Jurisdiction, Liability and Quantum Principles, ¶ 643 (Mar. 12, 2019).

83 Novenergia, SCC Case No. 2015/063, Final Award, ¶ 818 (Feb. 15, 2018).

As mentioned earlier, the Spanish Cases focus their discussion on whether Spain's behaviour constituted a breach under the FET standard contained in Article 10(1) of the ECT. While the breach of other substantive protections such as expropriation under Article 13 of the ECT or the ECT umbrella clause were invoked by some claimants,[84] these claims were largely unsuccessful. Most tribunals established that, while states can modify legislation, investors having no basis for an expectation that a given regime will remain unaltered,[85] Spain had breached the FET standard since it had "*eliminated a favorable regulatory regime previously extended to Claimants and other investors to encourage their investment in CSP. It was then replaced with an unprecedented and wholly different regulatory approach, based on wholly different premises*."[86] Tribunals, such as that of *Novenergia*, further labelled the legislative change as "*radical and unexpected,*"[87] while *NextEra* mentions how the "*regime was fundamentally and radically changed,*"[88] being "*substantially different*"[89] from the regime under which the investment was made.

However, this does not put an end to our analysis. As explained previously in Part III, Spain's legislative framework experienced several changes between 2009 and 2014. This raises an important question as to which measures exactly constitute a fundamental and radical change that breaches the FET standard and which ones are covered by a state's right to regulate? This question, besides being fundamental to the calculation of the But-For scenario, is also of key importance to determine the valuation date. This is because most tribunals decided to set the valuation date (i.e., the date when damages start to be determined by projecting the cash flows forward through the usage of the DCF methodology) on the date they found the FET standard to have been breached. This, in turn, influences the analysis of the historic damages.[90] The author will analyse all of the above in due order.

Starting with the analysis as to which measures breached the FET standard, it must be pointed out that, while all claimants were affected by a common set of norms cutting back on the 2007 regime, tribunals have found different answers to the question at hand.

First, a substantial number of tribunals seem to agree that the 2013–2014 measures were the ones "*crossing the line*" and violating the FET standard.[91] The *Novenergia* tribunal is particularly clear about

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84 *E.g.,* Eiser, ICSID Case No. ARB/13/36, Final Award, ¶ 352 (May 4, 2017); Foresight, SCC Case No. 2015/150, Final Award, ¶¶ 423–431 (Nov. 14, 2018); Novenergia, SCC Case No. 2015/063, Final Award, ¶¶ 759–763 (Feb. 15, 2018); Cube, ICSID Case No. ARB/15/20, Decision on Jurisdiction, Liability and Partial Decision on Quantum, ¶¶ 452–454 (Feb. 19, 2019).

85 *E.g.*, Eiser, ICSID Case No. ARB/13/36, Final Award, ¶ 362 (May 4, 2017); NextEra, ICSID Case No. ARB/14/11, Decision on Jurisdiction, Liability and Quantum, ¶ 584 (Mar. 12, 2019); InfraRed, ICSID Case No. ARB/14/12, Award, ¶ 406 (Aug. 2, 2019); Antin, ICSID Case No. ARB/13/31, Award, ¶ 555 (June 15, 2018). As we will examine later Masdar, albeit having factual differences to other cases, is a notable exception to this.

86 Eiser, ICSID Case No. ARB/13/36, Final Award, ¶ 365 (May 4, 2017).

87 Novenergia, SCC Case No. 2015/063, Final Award, ¶ 695 (Feb. 15, 2018).

88 NextEra, ICSID Case No. ARB/14/11, Decision on Jurisdiction, Liability and Quantum, ¶ 599 (Mar. 12, 2019).

89 *Id.* ¶ 598.

90 *See, e.g.,* Antin, ICSID Case No. ARB/13/31, Award, ¶¶ 667, 674 (June 15, 2018); Cube, ICSID Case No. ARB/15/20, Decision on Jurisdiction, Liability and Partial Decision on Quantum, ¶¶ 429, 482 (Feb. 19, 2019); Watkins Holding, ICSID Case No. ARB/15/44, Award, ¶¶ 570, 688 (Jan. 21, 2020).

91 Novenergia, SCC Case No. 2015/063, Final Award, ¶¶ 688–691, 697 (Feb. 15, 2018); Eiser, ICSID Case No. ARB/13/36, Final Award, ¶¶ 388–389, 418 (May 4, 2017); Antin, ICSID Case No. ARB/13/31, Award, ¶ 560 (June 15, 2018); Foresight, SCC Case No. 2015/150, Final Award, ¶ 398 (Nov. 14, 2018); NextEra, ICSID Case No. ARB/14/11, Decision on Jurisdiction, Liability and Quantum, ¶¶ 597–601 (Mar. 12, 2019). The Tribunal seems point out that the measures breaching the FET standard would be those identified as "Regulatory Framework III" which

this. After listing all measures undertaken by Spain from 2010 to 2013, it found that the 2010 measures did not, in the Tribunal's view, "*fall outside the acceptable range of legislative and regulatory behaviour*."[92] Likewise, the *Novenergia* tribunal found that R.D. 2/2013 did not constitute a breach of FET, as it was not egregious enough to satisfy such standard.[93] At the same time, the Tribunal did not assess FMES 2012, over which it found that it lacked jurisdiction[94] (most other Tribunals addressing FMES 2012 allegations arrived to the same conclusion).[95] Accordingly the *Novenergia* award found that R.D.L. 9/2013, R.D. 413/2014, O.M. IET/1045/2014, and LSE 2013 (i.e., the Regulatory Framework III measures) were the measures breaching the FET standard.[96] The Tribunal in *Cube Infrastructure Fund SICAV* v. *Kingdom of Spain* ["**Cube**"] is even more specific in finding that "*the date of the breach*" was "*when the new regime presaged by R.D.L. 9/2013 was given concrete form by R.D. 413/2014 and MO IET/1045/2014*."[97]

Watkins Holdings, while also finding that the FET standard was breached by the 2013–2014 measures, expressly mentions that not the measures individually but "*the Respondent's course of conduct in enacting the Disputed Measures [ranging from 2012–2014] in particular RDL 9/2013, Law 24/2013, RD 413/2014, Ministerial Order 1045/2014, taken as a whole*" violated the FET standard, stating that the violation crystallized on June 20, 2014, with the approval of O.M. IET/1045/2014.[98] Thus, *Watkins Holdings*, while reaching a similar conclusion that the FET standard was violated in 2014, looks at the FET breach from a slightly different perspective, not identifying that a specific measure "*crossed the line*" and breached FET (the other measures being covered by a State's "*right to regulate*"), but rather finding that a chain or accumulation of actions "*taken as a whole*" constituted the breach.

Other awards, such as *Masdar*, go much further, establishing that the "*Claimant had legitimate expectations that the benefits granted by R.D. 661/2007 would remain unaltered*."[99] This would mean that any derivation of the 2007 regime would infringe the FET standard. It is a more hardline approach, understandable, in part, under the circumstances of the case, since in *Masdar*, the investor had received specific commitments from the Ministry of Industry, Tourism, and Business that the plants "*qualified under the R.D. 661/2007 regime for their 'operational lifetime'*."[100]

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would include R.D.L. 2/2013, R.D.L. 9/2013, R.D. 413/2014, and Ministerial Order IET/1045/2014. *See id.* ¶ 523. InfraRed, ICSID Case No. ARB/14/12, Award, ¶¶ 454–456 (Aug. 2, 2019) (the Tribunal points out the L.S.E 2013 as the measure causing losses to the Claimants).

92 Novenergia, SCC Case No. 2015/063, Final Award, ¶ 688 (Feb. 15, 2018) (*citing* Summit Generation Ltd. and AES-Tisza Erömü Kft v. Republic of Hungary, ICSID Case No. ARB/07/22, Award, ¶ 9.3.73 (Sept. 23, 2010)).

93 Novenergia, SCC Case No. 2015/063, Final Award, ¶ 689 (Feb. 15, 2018).

94 *Id.* ¶ 690.

95 *See, e.g.,* NextEra, ICSID Case No. ARB/14/11, Decision on Jurisdiction, Liability and Quantum, ¶¶ 372–373 (Mar. 12, 2019); (Spain) Foresight, SCC Case No. 2015/150, Final Award, ¶ 247 (Nov. 14, 2018).

96 Novenergia, SCC Case No. 2015/063, Final Award, ¶ 697 (Feb. 15, 2018).

97 Cube, ICSID Case No. ARB/15/20, Decision on Jurisdiction, Liability and Partial Decision on Quantum, ¶ 429 (Feb. 19, 2019).

98 Watkins Holdings, ICSID Case No. ARB/15/44, Award, ¶ 570 (Jan. 21, 2020).

99 Masdar, ICSID Case No. ARB/14/1, Award, ¶ 521 (May 16, 2018).

100 *Id.* ¶¶ 519–520. Note that while Masdar is unique in that the investor was afforded "specific commitments" by the state the letters sent by the Ministry do not substantially expand or add on what was already stated in RD 661/2007, they seem to rather just repeat or mirror what was stated in the norm. It is thus debatable whether these commitments warrant treating Masdar differently to other investors investing under the same conditions and the same timeline. This seems to be the view of the Tribunal in 9REN, which stated "those letters simply confirmed what was already in RD 661/2007 and were issued after not before the claimant in that case made its investment. In the Tribunal's view, the

A slightly similar approach was adopted in *9REN Holding S.a.r.l* v. *Kingdom of Spain* ["**9REN**"], where the Tribunal "*substantially adopt[ed] the list of violations alleged by the Claimant,*"[101] which appear to include measures from 2010 all the way through 2014.[102] Nonetheless, it should be noted that 9REN does not assume that any change to the 2007 regime would breach the FET standard. In fact, a majority of the Tribunal believes that analysis of quantum should take into account "*the risk that a regulatory reduction in the FIT tariff would eventually be found by an investor state Tribunal not to have violated the ECT and therefore not to give rise to compensation*."[103] Therefore, the Tribunal, by majority, concluded that some amount of regulatory risk should be reflected in the Award.[104]

BayWa, on the other hand, is more restrictive, finding that the only measure breaching the FET standard was the clawback of remuneration established under R.D.L. 9/2013, i.e., the fact that future payments under the new regime would take into account past payments made under the 2007 regime.[105] *RREEF* is similar to *BayWa* in that it finds that "*[t]he Respondent is in breach of its obligation under the ECT for the retroactive application of the new regime*."[106] But *RREEF* also finds that Spain breached its obligation to offer the investor "*a reasonable return*" given that the "*return per plant is lower than the WACC +1% as defined by the Tribunal*."[107] The Tribunal in *Infracapital F1 S.à r.l. & Infracapital Solar B.V.* v. *Kingdom of Spain* ["**Infracapital**"] reached a similar conclusion.[108]

Lastly, *PV Investors* v. *Kingdom of Spain* ["**PV Investors**"] offers yet another perspective. This Tribunal—like others which were decided in favour of the State such as in *Stadtwerke München GmbH, RWE Innogy GmbH* v. *Kingdom of Spain* ["**Stadtwerke München**"][109]—decided that, given that continuous changes to the regulatory framework had been implemented since the very inception of the special regime in the LSE 1997[110] and that the Spanish courts consistently held such changes to be in accordance with Spanish Law,[111] investors could not reasonably expect an immutable legal framework. Hence, the only guarantee offered by Spain would have been that of providing a reasonable rate of return.[112] The Tribunal seems to envisage this "*reasonable return*" as a regulatory limit, i.e., Spain could legislate as long as the investor received a reasonable return on the investment, otherwise FET would be breached.[113] According to the Tribunal, this completely changes the logic as to how damages valuation should take place. Instead of having to assess liability first and then calculate damages "*in this particular case the quantification of the harm, if any, informs*

clear and specific "guarantee" in RD 661/2007 satisfies the requisite degree of "specificity"" (*See* 9REN Holding S.a.r.l v. Kingdom of Spain, ICSID Case No. ARB/15/15, Award, ¶ 299 (May 31, 2019) [*hereinafter* "9REN"]).

101 9REN, ICSID Case No. ARB/15/15, Award, ¶ 309 (May 31, 2019).

102 *Id.* ¶ 300.

103 *Id.* ¶ 412(h).

104 *Id.* ¶ 395 (the dissenting arbitrator found that no adjustment for regulatory risk should be made).

105 BayWa, ICSID Case No. ARB/15/16, Decision on Jurisdiction, Liability and Directions on Quantum, ¶ 496 (Dec. 2, 2019).

106 RREEF, ICSID Case No. ARB/13/30, Decision on Responsibility and on the Principles of Quantum, ¶ 600(2) (Nov. 30, 2018).

107 *Id.* ¶ 600(3).

108 Infracapital F1 S.à r.l. and Infracapital Solar B.V. v. Kingdom of Spain, ICSID Case No. ARB/16/18, Decision on Jurisdiction Liability and Directions on Quantum, ¶¶ 820, 822(5), 793(d), 793(e) (Sept. 13, 2021) [*hereinafter* "Infracapital"].

109 Stadtwerke München GmbH, RWE Innogy GmbH, and others v. Kingdom of Spain, ICSID Case No. ARB/15/1, Award, ¶¶ 271-281 (Dec. 2, 2019).

110 PV Investors, PCA Case No. 2012-14, Final Award, ¶ 602 (Feb. 28, 2020).

111 *Id.* ¶ 611.

112 *Id.* ¶ 616.

113 *Id.* ¶ 619.

the finding on liability."[114] Thus, instead of identifying specific measures breaching FET, the Tribunal (1) calculated the IRR that would have arisen for the plants in a scenario without the measures (estimated at seven per cent),[115] (2) calculated the IRR in the actual scenario,[116] and concluded that "*for 10 out of the 19 Claimant entities […], the IRR with the Disputed measures in place is below 7%*."[117] In consequence, the Tribunal held that "*by reducing the reasonable rate of return below 7%, Spain acted unreasonably and disproportionately and hence violated FET. Therefore, the Claimant entities whose IRR with the Disputed Measures are lower than 7% are entitled to compensation,*"[118] which amounted to a total of 91.1 million Euro.[119]

All in all, while a majority of tribunals seem to find that the 2013–2014 measures (i.e., Regulatory Framework III) were the ones breaching the FET standard, there are some tribunals that held otherwise, some found that all measures deviating from the 2007 regime breached FET. Others, however, found that only the remuneration clawback and/or the absence of a "*reasonable return*" infringed the ECT FET standard. An exception to the above is *PV Investors*, which found that no measure in particular breached FET. Instead, the economic effect of the measures altogether was such that it did not afford the Claimant a reasonable return on their investment, this being a breach of FET.

The above fits quite well into the framework created by Sergey Ripinsky for the Spanish Cases.[120] Ripinsky bases his analysis on (at the time) four cases (*Eiser*, *Novenergia*, *Antin*, and *Masdar*). He finds that, given that most tribunals decided that Spain could alter the 2007 framework as long as such change was not radical and fundamental, decisions on quantum should not be calculated under the assumption that the But-For scenario would be the "*pure*" 2007 regime.[121] First of all, he suggests that measures found not to be in breach of FET should be factored in, in the calculation of the But-For scenario.[122] This is a logical conclusion, consistent with the basic principles under *Factory at Chorzów* case, and it seems to have been applied by most tribunals. However, Ripinsky finds that the early awards he analysed looked at the new regime under the 2013–2014 measures "*as a whole*." An alternative approach would be dissecting the measures to find which aspect thereof breached FET.[123] Decisions such as *BayWa* appear to follow the latter approach in finding that only one aspect of a measures, i.e., the remuneration clawback, infringed FET, with all other measures having to be included in the calculation of the But-For scenario. Ripinsky offers yet another alternative valuation approach: in situations in which a tribunal finds that Spain was only obliged to offer a "*reasonable return*" to investors, it should independently calculate such a reasonable

114 *Id.* ¶ 648.
115 *Id.* ¶¶ 709–710.
116 *Id.* ¶ 846.
117 *Id.* ¶ 847.
118 *Id.*
119 *Id.* ¶ 848. The Tribunal calculated compensation on a per-entity basis, 91,1 million Euro is the sum of all such compensations. It should be noted that the Claimant's in PV Investors had initially asked for a compensation amounting to USD 2.2 billion. Such negligible compensation arising from such a huge case can arguably be considered a victory for the State.
120 Sergey Ripinsky, *Damages Assessment in the Spanish Renewable Energy Arbitrations: First Awards and Alternative Compensation Approach Proposal*, TDM 2 (2020).
121 *Id.* at 12.
122 *Id.* at 14–16.
123 *Id.* at 16.

rate, taking into account the specificities of each plant.[124] This reasonable return would be the But-For scenario that should then be compared with the real scenario.[125] Awards such as *PV Investors* seem to broadly follow this approach. Lastly, Ripinksy argued that tribunals may decide to calculate the But-For scenario on the basis of the pure 2007 regime, reducing such figure by a percentage "*representing the arbitrator's informed judgment – the extent, to which Spain went overboard*."[126] While this approach would be the easiest to calculate, no tribunal to date seems to have followed it, probably on the basis that this approach is "*not rigorous from the financial-analysis perspective*."[127]

The author is of the opinion that the "*approaches*" created by Ripinsky offer an excellent framework to categorize the Spanish Cases from a damages' perspective. In consequence, the author's analysis will be based on the following categories:

1. Tribunals finding that the FET standard was breached by the 2013–2014 measures "*as a whole,*" and that prior measures have to be factored in for the calculation of the But-for scenario. These include *Novenergia*, *Eiser*, *Antin*, *Watkins Holdings*, *Foresight*, *NextEra*, *Cube*, and *InfraRed Environmental Infrastructure GP Ltd.* v. *Kingdom of Spain* ["**InfraRed**"].

2. Tribunals finding that even the Regulatory Framework II (again taken as a whole) measures breached FET, consequently using something close to the "*pure*" 2007 regime as the basis of their calculation of the But-for scenario. These include *Masdar* and, in part, *9REN*.[128]

3. Tribunals finding that only a specific aspect of the 2013–2014 regime breached FET. For instance, the remuneration clawback constituting the breach of the FET standard. These include *BayWa* and partially[129] *RREEF* and *Infracapital*.

4. Tribunals which considered that Spain breached FET because it failed to provide a "*reasonable rate of return*", such return having to be calculated independently by the tribunal. These include *PV Investors* and partially *RREEF* and *Infracapital*.

This categorization will serve our subsequent analysis. As will be examined in Parts IV.C and IV.D, the conclusions we reached in this section will play a major role in the choice of both the valuation date and the inclusion or exclusion of historic damages.

C. <u>The determination of the valuation date</u>

The determination of the valuation date plays a key role in valuation. As stated by Marboe, "*the value of an object changes constantly in the course of time. Furthermore, economic, social and political developments*

[124] *Id.* at 18.
[125] *Id.*
[126] *Id.* at 19.
[127] *Id.*
[128] We should take into account that, while 9REN seems to consider the Regulatory Framework II measures in its "list of violations," the majority of the Tribunal find that not all measures reducing the tariff would breach the ECT and that a regulatory risk should be considered in quantum assessment.
[129] RREEF and Infracapital do agree that the remuneration clawback breached the FET standard, however they also consider (in a similar fashion to PV Investors) that Spain failed to provide a reasonable rate of return, this also breaching FET. Thus, these two awards could be considered a "hybrid" between categories 3 and 4. The author decided to include them under 3 because PV Investors is rather unique in that it analyses quantum first and then goes on to decide whether, on the basis of its calculations, a breach of FET existed.

have a direct influence on it."[130] In consequence, the choice of valuation date affects both, the condition of a given asset and the information available to determine its value.[131] The choice of a valuation date is often tied to whether the valuation is conducted on an *ex ante* or an *ex post* basis.[132] An *ex ante* valuation is one which only considers information available at the moment of a particular historic date (such as the date of the breach), while an *ex post* valuation is one that incorporates information after such date and until the date in which the valuation exercise is carried out.[133] Consequently, the two most used valuation dates are the date of the breach, commonly used in expropriation cases, and the date of the award, mostly used in non-expropriation cases.[134] Choosing the latter valuation date helps in arriving as closely as possible at full reparation,[135] however, given the length of arbitration proceedings, market volatility (for example, due to economic crisis) risks to "*result in large swings in value.*"[136] When it comes to FET breaches, many tribunals seem to have used an *ex-ante* approach, the valuation date either being the date of the first characterized violation of the standard[137] or the date corresponding to a culmination of events characterized as a breach of FET.[138]

As the author will now examine, the tribunals in the Spanish Cases have been fairly consistent (despite some exceptions) in applying an *ex ante* valuation approach, setting the valuation date in June 2014.

First, most tribunals finding that the 2013–2014 measures were the ones breaching the FET standard also established that the valuation date should be June 20, 2014, which is the date when O.M. IET/1045/2014 was published and claimants considered the damage to their investment to have been consolidated.[139] A substantial number of tribunals thus found that the date of the FET breach was also the valuation date. As put by *InfraRed*, "*[t]he Tribunal is satisfied that the breach of the ECT crystallized in June 2014 and this is the appropriate moment at which to value Claimant's losses*."[140] In a similar fashion, *9REN*[141] and *Foresight*[142] used June 30, 2014 as the valuation date. This was the date

130 MARBOE, *supra* note 6, at 129.
131 *Id.*
132 ARIF H. ALI & DAVID L. ATTANASIO, INTERNATIONAL INVESTMENT PROTECTION OF GLOBAL BANKING AND FINANCE: LEGAL PRINCIPLES AND ARBITRAL PRACTICE 348–349 (2021) [*hereinafter* "ALI & ATTANASIO"].
133 *Id.* at 349.
134 *Id.* at 349–350. *See also* MARBOE, *supra* note 6, at 149.
135 MARBOE, *supra* note 6, at 149.
136 ALI & ATTANASIO, *supra* note 132, at 350.
137 Infracapital, ICSID Case No. ARB/16/18, Decision on Jurisdiction, Liability and Directions on Quantum, ¶ 819 (Sept. 13, 2021); Greentech Energy Systems A/S v. Italian Republic, SCC Case No. V 2015/095, Final Award, ¶ 565 (Dec. 23, 2018); SAUR International SA v. Republic of Argentina, ICSID Case No. ARB/04/4, Award, ¶¶ 165, 255–256 (May 22, 2014); Talsud S.A. v. United Mexican States, ICSID Case No. ARB(AF)/04/4, Award, ¶ 12.43 (June 16, 2010); Sempra Energy International v. Argentine Republic, ICSID Case No. ARB/02/16, Award, ¶ 209 (Sept. 28 2007).
138 Watkins Holdings, ICSID Case No. ARB/15/44, Award, ¶¶ 679–680 (Jan. 21, 2020); Crystallex International Corp. v. Bolivarian Republic of Venezuela, ICSID Case No. ARB(AF)/11/2, Award, ¶ 855 (Apr. 4, 2016); Enron Corp. & Ponderosa Assets, L.P. v. Argentine Republic, ICSID Case No. ARB/01/3, Award, ¶ 405 (May 22, 2007) [*hereinafter* "Enron Corp."].
139 Eiser, ICSID Case No. ARB/13/36, Final Award, ¶¶ 427, 437 (May 4, 2017); Antin, ICSID Case No. ARB/13/31, Award, ¶¶ 641–642, 666 (June 15, 2018); Cube, ICSID Case No. ARB/15/20, Decision on Jurisdiction, Liability and Partial Decision on Quantum, ¶¶ 429, 482, 534 (Feb. 19, 2019); InfraRed, ICSID Case No. ARB/14/12, Award, ¶ 576 (Aug. 2, 2019).
140 InfraRed, ICSID Case No. ARB/14/12, Award, ¶ 576 (Aug. 2, 2019).
141 9REN, ICSID Case No. ARB/15/15, Award, ¶ 406 (May 31, 2019).
142 Foresight, SCC Case No. 2015/150, Final Award, ¶ 489 (Nov. 14, 2018).

of the last audited accounts of the companies, being in close temporal proximity to the date of the last measure breaching the FET standard (i.e., O.M. IET/1045/2014).[143] *Watkins Holdings* contains a fairly detailed explanation of its findings regarding the valuation date. The Tribunal established that, in accordance with *Azurix Corporation* v. *Argentine Republic* and *Enron Corporation and Ponderosa Assets, L.P.* v. *Argentine Republic*, in a situation in which a series of actions "*as an aggregate*" breached FET, the valuation date should be the "*watershed*" moment or when "*the most serious damage arose in connection with the Disputed Measures.*"[144] Consistently with its findings on the merits, the Tribunal found that O.M. IET/1045/2014 was both, the measure concluding or crystallizing the breach of FET and the one causing the most serious damage to the investment.[145] Thus, the valuation date was set on June 20, 2014.[146]

Novenergia, however, followed a completely different approach using September 15, 2016, the cut-date established by the Claimant's valuation expert, as the valuation date.[147] This is one of the few instances in the Spanish Cases where something in the line of an *ex post* valuation approach seems to have been used by tribunals. The award does not contain an extensive explanation as to why this valuation date was chosen. Instead, the Tribunal seems to have been largely in agreement with the DCF model presented by Claimant,[148] which uses this valuation date. This choice of valuation date logically led the Tribunal to the conclusion that compensation for historic damages was due in this case (since all damages prior to September 2016 were historic losses). However, since the Tribunal found that not all measures introduced by Spain violated the FET standard, it deduced the losses caused by some of these measures from the amount of due compensation.[149] Similarly, *NextEra* used June 30, 2016 as a valuation date.[150] Once again, this is the date of the updated calculations of the Claimants.[151] The Tribunal used this date since the Respondent "*did not raise any objection to the 30 June 2016 valuation date.*"[152] Nonetheless, we should keep in mind that this case used an investment-based and not an income-based methodology.

Regarding the cases that considered even the 2010 measures to have breached the FET standard, both *Masdar* and *9REN*[153] seem to support establishing June 2014 as the appropriate valuation date. *Masdar* is clear in stating that this date is "*better suited to provide [full reparation for Respondent's breach] as it uses hindsight and historical experience until Ministerial Order IET 1045/2014 implemented the new regime.*"[154] Furthermore, this choice of valuation date would be justified by the fact that it was

143 9REN, ICSID Case No. ARB/15/15, Award, ¶ 406 (May 31, 2019), ("The Tribunal accepts 30 June 2014 as an appropriate Date of Assessment, having regard to the enactment of the New Regulatory Regime on 10 June 2014 and the convenience of evaluating data as of the end of the second quarter of the 2014 financial year.")

144 Watkins Holdings, ICSID Case No. ARB/15/44, Award, ¶ 679 (Jan. 21, 2020) (*citing* Azurix Corp. v Argentine Republic, ICSID Case No. ARB/01/12, Award, ¶¶ 417–418 (July 14, 2006) *and* Enron Corp., ICSID Case No. ARB/01/3, Award, ¶ 405 (May 22, 2007)).

145 *Id.* ¶ 680.

146 *Id.* ¶¶ 680–681.

147 Novenergia, SCC Case No. 2015/063, Final Award, ¶ 838 (Feb. 15, 2018).

148 *Id.* ¶¶ 837–838.

149 *Id.* ¶¶ 838–840.

150 NextEra, ICSID Case No. ARB/14/11, Decision on Jurisdiction, Liability and Quantum Principles, ¶ 678 (Mar. 12, 2019).

151 *Id.* ¶ 613.

152 *Id.* ¶ 652.

153 9REN, ICSID Case No. ARB/15/15, Award, ¶ 406 (May 31, 2019).

154 Masdar, ICSID Case No. ARB/14/1, Award, ¶ 606 (May 16, 2018).

in this moment that "*the parameters for the new regime [were] fully defined and enable[d] us to forecast what the remuneration would be.*"[155]

Delving into the third category of cases—those that establish that the clawback of remuneration was the one breaching the FET standard—the tribunals in *BayWa* and *RREEF* did, at first, not reach a definitive conclusion on the determination of the valuation date nor on valuation in general. They found that calculating the economic value of the remuneration clawback in a standalone fashion was difficult. *BayWa* tribunal declares that it was not able "*despite its best efforts, to quantify the amount.*"[156] Consequently, the Tribunal decided that the Parties, with the assistance of their experts, should seek to reach an agreement on the economic impact of the clawback.[157] It should be noted that no general agreement was reached by the Parties and their experts.[158] Consequently, the Tribunal decided that July 13, 2013 was the appropriate valuation date (when R.D.L. 9/2013 came into force).[159] Given that *BayWa* found that only the introduction of the remuneration clawback breached FET, it was thus following an *ex ante* valuation approach, the valuation date being the date of the breach. *RREEF* also found itself unable to determine the effect of the clawback,[160] and directed the parties to seek an agreement on the matter.[161] However, in *RREEF*, the experts agreed on a number of points, *inter alia*, that a DCF analysis should be carried out taking June 30, 2014 as the valuation date.[162] This was taken into consideration by the Tribunal in its final determination of damages.[163] Similarly, *Infracapital* agreed that June 2014 was the appropriate valuation date, being that in which "*Spain enacted the final June 2014 Order that culminated with the Disputed Measures, other Tribunals having utilized the June 2014 date for valuation.*"[164]

Lastly, *PV Investors* contains an interesting and detailed discussion regarding the valuation date. The Tribunal pondered whether to set the valuation date at the date of the award, as the Claimant suggested, in an *ex post* valuation, or whether it was to set the valuation date at the date of the breach in an *ex ante* valuation.[165] The Tribunal considered that an *ex ante* valuation "*appears particularly appropriate when the consequences of a later evolution of prices, interest rates, or other inputs are unrelated to the impugned measures.*"[166] In this case, interest rates had been abnormally low during a prolonged period following the economic crisis.[167] This was unrelated to Spain's measures on renewable energies and "*was mainly due to the evolution of the financial markets and to macroeconomic*

155 Masdar, ICSID Case No. ARB/14/1, Award, ¶ 606, (May 16, 2018) quoting the Claimant's expert.
156 BayWa, ICSID Case No. ARB/15/16, Decision on Jurisdiction, Liability and Directions on Quantum, ¶ 616 (Dec. 2, 2019).
157 *Id.*
158 BayWa, ICSID Case No. ARB/15/16, Award, ¶ 9 (Jan. 25, 2021).
159 Consistent with Claimant's allegations.
160 RREEF, ICSID Case No. ARB/13/30, Decision on Responsibility and on the Principles of Quantum, ¶ 592 (Nov. 30, 2018).
161 *Id.* ¶¶ 597–598.
162 RREEF, ICSID Case No. ARB/13/30, Award, ¶ 19 (Dec. 11, 2019).
163 *Id.* Award, ¶¶ 19–20.
164 Infracapital, ICSID Case No. ARB/16/18, Decision on Jurisdiction, Liability and Directions on Quantum, ¶ 819 (Sept. 13, 2021). The Tribunal cites Antin and Foresight as Awards which also used the June 2014 valuation date.
165 PV Investors, PCA Case No. 2012-14, Final Award, ¶ 720 (Feb. 28, 2020).
166 *Id.* ¶ 721.
167 This also affected the periodic revision of returns, which was linked to the evolution of the interest rates. PV Investors, PCA Case No. 2012-14, Final Award, ¶ 722 (Feb. 28, 2020).

conditions."[168] Accordingly, the Tribunal chose an *ex ante* valuation, selecting June 30, 2014 as the valuation date.[169]

All in all, it would appear that the vast majority of the tribunals consider O.M. IET/1045/2014 as the valid reference point for the determination of the valuation date. Most tribunals found that June 20, 2014 was the correct valuation date, while others set the valuation date at the end of that same quarter of the 2014 financial year, i.e., June 30, 2014. The latter approach seems to be based on "*the convenience of evaluating data as of the end of the second quarter of […] 2014*."[170] Consequently, the tribunals in the Spanish Cases seem to overwhelmingly have chosen an *ex ante* in lieu of an *ex post* valuation approach. The reasons laid out in *PV Investors* likely are also applicable to other cases.[171] In fact, even *BayWa*, which set the valuation date on July 13, 2013, seems to have chosen an *ex ante* valuation, choosing to set the valuation date at the date of the breach (i.e., the remuneration clawback under R.D. 9/2013). The only clear outliers to this trend seem to be *Novenergia* and *NextEra*, which chose September 15, 2016 and June 30, 2016 respectively as their valuation date (closer to an *ex post* valuation). Both awards incorporated the fact that they did not find all measures introduced by Spain a breach of FET into their quantum assessment: *Novenergia* does so by subtracting the effect of certain measures from their damages calculation, while *NextEra* considers that given that "*Regulatory Framework I is not the proper basis for determining loss in this case,*" the value of the assets should be capitalised at a rate of the WACC + 200 bps and not WACC + 300 bps, as suggested by Claimants.[172] However, it would appear that in contrast to *PV Investors*, these awards incorporate (to some extent) the effects of circumstances occurring after June 2014, such as the presence abnormally low interest rates, which, according to *PV Investors*, were caused by exogenous factors.

D. The compensation of historic losses

Both, the decision as to which legislative measures breached the FET standard and the determination of the valuation date, had a very important effect on another key aspect of quantum assessment: the compensation of so-called historic damages, i.e., damages which arise before the valuation date.

Most awards finding that the 2013–2014 measures were the ones breaching the FET standard of the ECT also refused to compensate investors for historic damages and compensated them only for the future cash flows from June 2014 onwards. According to the reasoning of these decisions, prior measures were within the spectrum of a state's legitimate legislative powers. In this sense, *Eiser* establishes that "*[t]he Tribunal has not found that the piecemeal changes made by Respondent prior to [June 2014] […] violated ECT. Accordingly, this portion of the Claimant's damages claim dealing with historical*

[168] *Id.*
[169] *Id.* ¶ 723.
[170] 9REN, ICSID Case No. ARB/15/15, Award, ¶ 406 (May 31, 2019).
[171] Since they refer to macroeconomic circumstances, which are a part of the factual background of all cases.
[172] NextEra, ICSID Case No. ARB/14/11, Decision on Jurisdiction, Liability and Quantum, ¶¶ 664–666 (Mar. 12, 2019).

losses […] must fail."[173] A similar approach was also followed in *Antin*,[174] *Foresight*,[175] *Cube*,[176] and *Watkins Holdings*.[177] The *Foresight* award deserves further attention, since it points out that "*the exclusion of all historical losses may include certain losses prior to the Date of Assessment that are attributable the retroactive effect of the New Regulatory Regime*."[178] Notwithstanding this, the Tribunal found that, in order to compensate these damages, the isolated effect of the remuneration clawback would have to be calculated. Given that this information was not provided, no damages were awarded on this basis.[179] This, however, does not detract from the significance of the fact that the Tribunal in *Foresight* seemed open to award historic damages on the basis of the remuneration clawback. The author will pick up on this point when analysing the third category of cases. Lastly, it should be mentioned that *Novenergia* is one of the few cases compensating historical damages. Given that this case set its valuation date in September 2016, the Tribunal first calculated damages (both historical damages and loss of fair market value),[180] then calculated the economic effect of measures it found not to have breached the FET standard,[181] and lastly deducted the latter from the former.[182] *Novenergia*, consistent with its findings on merits, only accepted compensating historic damages for the effect of the "*Regulatory Framework III*" measures up to September 2016.

Masdar, on the other hand, held that even the 2010 measures breached the FET standard. Given that the valuation date was set in June 2014, the Tribunal decided that historic damages should be compensated.[183] *Masdar* based its calculation of historic damages on the Claimant's submissions.[184] In regard to *9REN*, the Tribunal did not address historic damages in an individualized manner, however, some paragraphs in the award seem to indicate that historic damages were taken into consideration and compensated.[185]

173 Eiser, ICSID Case No. ARB/13/36, Final Award, ¶ 459 (May 4, 2017).
174 Antin, ICSID Case No. ARB/13/31, Award, ¶ 667 (June 15, 2018).
175 Foresight, SCC Case No. 2015/150, Final Award, ¶¶ 536–538 (Nov. 14, 2018). The Tribunal at Foresight does not seem to rule out historic damages completely. Instead, it seems to suggest that while the effects of R.D. 1565/2010, R.D.L. 14/2010, R.D.L. 2/2013, and Law 15/2012 should be excluded from the assessment of damages, prior historical damages such as those arising from the remuneration clawback could have been taken into account, had the Claimant provided the Tribunal with a breakdown of the individual economic impact of each of the disputed measures.
176 Cube, ICSID Case No. ARB/15/20, Decision on Jurisdiction Liability and Partial Decision on Quantum, ¶ 482 (Feb. 19, 2019).
177 Watkins Holdings, ICSID Case No. ARB/15/44, Award, ¶ 688 (Jan. 21, 2020).
178 Foresight, SCC Case No. 2015/150, Final Award, ¶ 538 (Nov. 14, 2018).
179 *Id.*
180 Novenergia, SCC Case No. 2015/063, Final Award, ¶ 838 (Feb. 15, 2018).
181 *Id.* ¶ 840.
182 *Id.* ¶ 841.
183 Masdar, ICSID Case No. ARB/14/1, Award, ¶¶ 650–652 (May 16, 2018).
184 *Id.* ¶ 652.
185 9REN, ICSID Case No. ARB/15/15, Award, ¶ 413 (May 31, 2019). While discussing adjustments to the calculations of the Claimant's quantum experts, the Tribunal finds that "the FTI calculation […] failed to take into account a number of significant contingencies, including the 7% [tax on the value of the production of electrical energy (TVPEE)] revenue tax [a 2012 measure], the lack of a "stability guarantee" in RD 1578/2008, the increase in O&M costs after 2012 and an illiquidity discount." This suggests that valuation parameters prior to the valuation date and, hence, historic damages were taken into consideration by the Tribunal. Further evidence of this can be found in *id.* ¶ 416 wherein the Tribunal adopts the quantum asserted by the Claimant (including historic losses) reducing it by 20 per cent by (i) removing the claim to reimbursement of the TVPEE, (ii) reducing the expected operating life of the facilities, (iii) eliminating tariff protection for one of the plants, (iv) incorporating discounts for illiquidity and regulatory risk. In consequence, it appears that all other historic damages were included into the 41.76 million Euro awarded by the Tribunal.

Regarding the third category of cases, the Tribunal in *BayWa* does not appear to have taken into account historical damages, since it set the valuation date on July 9, 2013 (i.e., arguably at the moment of the breach, in which the clawback was introduced).[186] In *RREEF*, given that the Tribunal also found that the Respondent was in breach of FET because of its failure to guarantee a reasonable rate of return, it found that the assessment of the economic impact of the clawback had to be considered in the determination of the reasonableness of the return. Accordingly, there was no need to compensate specifically for the clawback, since this would entail double compensation for the same damage.[187] Thus, no historic damages seem to have been considered under *RREEF*.[188] Lastly, *Infracapital* found that past remuneration cannot be clawed back and that "*any amount that may have been applied by Respondent in detriment of Claimants should be compensated*."[189] It is uncertain whether this could include historic damages. In principle, the historic damages that could potentially arise out of the remuneration clawback would be those corresponding to the July 2013 (entry into force of R.D.L. 9/2013) to June 2014 (valuation date) period.[190] Nonetheless, it should be noted that a transitory regime covers the period between the entry into force of R.D.L. 9/2013 and the other measures developing the Regulatory Framework III.[191] According to such a regime, clawbacks corresponding to the 2013–2014 period would be regularised from June 2014 onwards, i.e., most of the effects of the clawback would be felt after June 2014—and, thus, after the valuation date.

Finally, in *PV Investors*, the Tribunal once again had to decide whether the computation of losses, in the scenario without measures,[192] must take the remuneration clawback into account.[193] The Tribunal found that "*it would not be admissible to deduct past profits when calculating an investor's remuneration going forward,*" therefore rejecting the remuneration clawback.[194] It should be noted that in *PV Investors*, the rejection of the clawback did not occur during the discussion of merits, but during

186 BayWa, ICSID Case No. ARB/15/16, Award, ¶¶ 44–48 (Jan. 25, 2021). Claimant's proposed valuation model does not seem to include historic damages, neither does the Respondent nor the Tribunal.

187 RREEF, ICSID Case No. ARB/13/30, Decision on Responsibility and on the Principles of Quantum (Nov. 30, 2018), ¶ 590 ("since the retroactive application of the new regime is duly taken into account for assessing the reasonableness of the return, there is no reason to compensate specifically for the retroactivity imposed by the Respondent since it is found in breach of its obligation to insure a reasonable return of the Claimants. Otherwise: this would result in compensating twice for the same damage.").

188 While not expressly stated in the Award, paragraphs 45 and 46 seem to hint in this direction. *See* RREEF, ICSID Case No. ARB/13/30, Award, ¶¶ 45–46 (Dec. 11, 2019).

189 Infracapital, ICSID Case No. ARB/16/18, Decision on Jurisdiction, Liability and Directions on Quantum, ¶ 820 (Sept. 13, 2021).

190 The effect of the remuneration clawback would still be felt in cash flows arising after valuation date, but these would not be considered historic cash flows.

191 R.D.L. 9/2013, Disposición adicional primera establishes that the clawback applies since the entry into force of the R.D.L., which was on 14 July 2013. Nonetheless, the Disposición transitoria tercera sets out a transitory regime in which several norms, including R.D. 661/2007 will be applied until the approval of further norms creating the 2013-2014 regulatory framework. Under this transitory regime, energy producers under the special regime might receive a payment on account for such remuneration. However, upon approval of the norms developing the Regulatory Framework III, facilities having received said payment on account will have to regularize it according to the new remuneration methodology.

192 This term is used by the Tribunal instead of the "But-for" scenario given that at this moment the Tribunal has not yet assessed whether a breach of FET took place.

193 PV Investors, PCA Case No. 2012-14, Final Award, ¶ 811 (Feb. 28, 2020).

194 *Id.* ¶ 812.

the discussion of quantum. In consequence, the Tribunal did not take into account the historic effect of the clawback in the calculation of its "*But-For*" scenario.[195]

In conclusion, it appears that tribunals have, by and large, refused to compensate investors for historic damages. This seems to be a consequence of the fact that most tribunals have decided to situate the valuation date at the date of the breach. Given that measures prior to 2013 were found to be consistent with the obligations under the ECT, no damages arising from such measures could be compensated. Following the same logic, however, awards (such as *Masdar* and *9REN*) that found even the 2010–2013 measures (Regulatory Framework II) breached the FET standard, compensated historic losses, since they found the losses caused by Regulatory Framework II to be unlawful and thus compensable. Lastly, in regard to the remuneration clawback, since it was introduced in July 2013, in theory, some historic damages from July 2013 until the valuation date[196] could exist. Nonetheless, the existence of a transitory regime in R.D.L. 9/2013 should be taken into consideration.

E. The expected operating lifetime of the plants[197]

This was yet another area of contention in the awards. Assumptions regarding the expected operational lifetime of the facilities impact the amount of cash flows the investors will receive, thereby affecting valuation. Tribunals in the Spanish Cases did not hesitate to reduce the expected operating lifetime of plants estimated by claimants. *Eiser*,[198] *Antin*,[199] and *Masdar*[200] reduced such lifetime from 40 years used by claimants to 25 years. *RREEF*,[201] *BayWa*,[202] *Watkins Holdings*,[203] *InfraRed*,[204] and *Infracapital*[205] further agree that the expected lifetime of the plants should be 25 years. Interestingly, the Tribunal in *BayWa* maintained the 25-year mark even though the investment consisted of wind power plants, which use different underlying technology to that of the other cases (which involved mainly concentrated solar power ["**CSP**"] plants). The same is also true for *RREEF*, which also invested in the wind power industry by indirectly acquiring an equity share in three project companies with activity in that sector.[206] Regarding CSP plants, the estimated lifetime of 25 years appears to be consistent with Spanish legislation such as R.D.

195 *Id.* ¶ 817. The Tribunal followed Claimant's allegations that past profits should not be considered in the calculation of the scenario without measures but found that Respondent's methodology for computing this should be selected.

196 For the most part, a valuation date in June 2014 was chosen.

197 The determination of plant's expected operating lifetime is in no way linked to the measures each Tribunal found to be in breach of the ECT FET clause. Accordingly, this section will not be systematized according to the categories of cases we identified earlier.

198 Eiser, ICSID Case No. ARB/13/36, Final Award, ¶¶ 451–452 (May 4, 2017).

199 Antin, ICSID Case No. ARB/13/31, Award, ¶¶ 713–714 (June 15, 2018).

200 Masdar, ICSID Case No. ARB/14/1, Award, ¶¶ 617–618 (May 16, 2018).

201 RREEF, ICSID Case No. ARB/13/30, Decision on Responsibility and on the Principles of Quantum, ¶ 549 (Nov. 30, 2018).

202 BayWa, ICSID Case No. ARB/15/16, Decision on Jurisdiction, Liability and Quantum, ¶¶ 483–484 (Dec. 2, 2019).

203 Watkins Holdings, ICSID Case No. ARB/15/44, Award, ¶ 708 (Jan. 21, 2020).

204 InfraRed, ICSID Case No. ARB/14/12, Award, ¶ 573 (Aug. 2, 2019).

205 Infracapital, ICSID Case No. ARB/16/18, Decision on Jurisdiction, Liability and Directions on Quantum, ¶¶ 743–744 (Sept. 13, 2021).

206 RREEF, ICSID Case No. ARB/13/30, Decision on Responsibility and on the Principles of Quantum, ¶ 142 (Nov. 30, 2018).

1578/2008,[207] and R.D. 661/2007,[208] which established that CSP plants would receive higher remuneration under R.D. 661/2007 during the first 25 operation years.[209] *BayWa* does not seem to have followed the same logic since wind power plants under R.D. 661/2007 would only receive higher remuneration during the first 20 years.[210]

Cube[211] and *Foresight*,[212] on the other hand, decided to lower the expected lifetime of the plants from the 35 years suggested by the claimants to 30 years. As explained in *BayWa*, this discrepancy with the 25-year expectancy assumed by a majority of the tribunals might be tied to the fact that Cube's investment consisted of photovoltaic power ["**PV**"] plants and hydro plants, the latter having a longer life expectancy.[213] In fact, it appears that awards regarding PV plants commonly used a 30-year life expectancy.[214] *Infracapital*, which assumed a 25-year life expectancy, being an exception to this.[215] The awards do not explain in detail why a longer useful operating life was usually assumed for PV plants when compared to CSP plants.[216] Once again, the 30-year estimation is, however, consistent with R.D. 661/2007, which establishes that PV plants will receive higher remuneration during the first 30 operation years.[217] Nonetheless, according to some research, PV plants seem often to have shorter life cycles than CSP Plants.[218]

We lack detailed knowledge of both the record of the arbitration and the technicalities surrounding the determination of a plant's useful life to give our opinion as to which useful operating life should be used for PV plants or CSP Plants. What remains clear, however, is that tribunals seem to have followed R.D. 661/2007 in their estimation of the useful life of the facilities regardless of the technology type. This seems to have led virtually all tribunals to conclude that valuation should be based on the assumption of either a 25 or 30-year life expectancy.

V. Conclusions

The following table summarizes the main results of the author's analysis, further displaying the amounts claimed by claimants and awarded by tribunals on a per-case basis. The cases that may

207 R.D. 1578/2008, on Remuneration for the Production of Electricity using Photovoltaic Solar Technology for Facilities after the Deadline for Maintaining the Remuneration for such Technology under R.D. 661/2007 (B.O.E. 2008, 234), art. 11.5.

208 B.O.E. 2007, 126, art. 36.

209 *Id.* arts. 2(1)(b) & 36.

210 *Id.*

211 Cube, ICSID Case No. ARB/15/20, Decision on Jurisdiction, Liability and Partial Decision on Quantum, ¶¶ 312–314 (Feb. 19, 2019). Note that in Cube the investment consisted of both photovoltaic plants and hydro plants.

212 Foresight, SCC Case No. 2015/150, Final Award, ¶ 517 (Nov. 14, 2018).

213 BayWa, ICSID Case No. ARB/15/16, Decision on Jurisdiction, Liability and Quantum, ¶ 483 (Dec. 2, 2019).

214 Novenergia, 9REN and PV Investors, all cases dealing with PV plants, assumed a 30-year life expectancy. Novenergia, SCC Case No. 2015/063, Final Award, ¶¶ 838–839 (Feb. 15, 2018); PV Investors, PCA Case No. 2012–14, Final Award, ¶ 651 (Feb. 28, 2020); 9REN, ICSID Case No. ARB/15/15, Award, ¶ 416 (May 31, 2019).

215 Infracapital, ICSID Case No. ARB/16/18, Decision on Jurisdiction, Liability and Directions on Quantum, ¶¶ 743–744 (Sept. 13, 2021). The case concerns PV plants as can be seen at *id.* ¶ 110.

216 Indeed, Awards which discussed the matter, such as Foresight merely observed that neither Claimant's nor Respondent's experts had expertise on the determination of the useful life of PV facilities. Based on the evidence in the record, the Majority of the Tribunal considered that Respondent's assumption of a useful operating life of 30 years is more reasonable; Foresight, SCC Case No. 2015/150, Final Award, ¶ 517 (Nov. 14, 2018).

217 B.O.E. 2007, 126, arts. 2(1)(b) & 36.

218 J. Hernández-Moro & J.M.Martínez-Duart, *Analytical model for solar PV and CSP electricity costs: Present LCOE values and their future evolution*, 20 RENEW. SUSTAIN. ENERGY REV. 119–132 (2013); C. Parrado, A. Marzo, E. Fuentealba & A.G. Fernández, *2050 LCOE improvement using new molten salts for thermal energy storage in CSP plants*, 57 RENEWABLE SUSTAIN. ENERGY REV. 505–514 (2016).

be considered as "*outliers*" are marked in yellow. This table further groups cases in the categories the author identified before on the basis of Ripinsky's analysis and showcases the amounts of damages claimed and damages awarded, and the ratio of damages awarded to damages claimed (last column). Furthermore, the total sum claimed and awarded, and the ratio of damages awarded/claimed have been calculated for each category of cases.

Table 1

	Valuation Method	***Measures breaching FET***	***Valuation Date***	***Historic losses***	***Operational Lifetime of the Plants***	***Damages claimed (in mill. EUR)***	***Damages awarded (in mill. EUR)***	***%***
Eiser *May 4, 2017*	DCF	2013/2014 measures	June 2014	No	25 years	196	128 (annulled Award)	65%
Novenergia *Feb. 15, 2018*	DCF	2013/2014 measures	Sept. 2016 (date of the latest available calculations)	Yes	30 years	61.3	53.3	87%
Antin *June 15, 2018*	DCF	2013/2014 measures	June 2014	No	25 years	148	112	76%
Foresight *Nov. 14, 2018*	DCF	2013/2014 measures (the measures as an aggregate breached FET)	June 2014	No	30 years	58.2	39	67%
Cube *Feb. 19, 2019*[219]	DCF	2013/2014 measures	June 2014	No	30 years	74.08	33.7	45%
NextEra *Mar. 12, 2019*[220]	Investment-based methodology	The collective effect of the 2013–2014 measures	June 30, 2016 (date of the latest available calculations)	-	-	521.4	290,6	56%
InfraRed *Aug. 2, 2019*	DCF	2013/2014 measures (specific mention of Ley 24/2013)	June 2014	No	25 years	75.7	28.2	37%
Watkins Holdings *Jan. 21, 2020*	DCF	2013/2014 measures	June 2014	No	25 years	123.9	77	62%
Mean %								62%

219 Date of the Decision on Jurisdiction, Liability and Partial Decision on Quantum.
220 Date of the Decision on Jurisdiction, Liability and Quantum Principles.

Masdar *May 16, 2018*	DCF	Alterations of the 2007 regime	June 2014	Yes	25 years	179	64.5	36%
9REN *May 31, 2019*	DCF	Alterations of the 2007 regime	June 2014	Yes[221]	30 years	52.2	41.76	80%
Mean %								58%
RREEF[222] *Nov. 30, 2018*	DCF	The remuneration clawback and failure to provide a reasonable rate of return	June 2014	No (no specific compensation for the clawback)	25 years	265	59.6	22%
BayWa[223] *Dec. 2, 2019*	DCF	the remuneration clawback	July 2013	No (the effects of the remuneration clawback are reversed)	25 years	74	22,006	30%
Infra capital[224] *Sept. 13, 2021*	DCF (implicitly)	The remuneration clawback and failure to provide a reasonable rate of return	June 2014	No (the effects of the remuneration clawback are reversed)	25 years	TBD	TBD	-
Mean %								26%
PV Investors *Feb. 28, 2020*	DCF	No measure in particular, Spain partially failed to provide a reasonable rate of return	June 2014	No (the effects of the remuneration clawback are reversed)	30 years	1900	91.1	5%

As is evident from the table, not a single tribunal awarded claimants the full amount of their claim. The proportion of the claim that the tribunals decide to award, however, varies greatly from case to case, and from category to category.

As analysed, the bulk of the awards found that the 2013–2014 (Regulatory Framework III) measures were the ones breaching the FET standard. On an average, tribunals in this category awarded around 62 per cent of the amounts claimed. Now, this figure should be approached with caution, given that great variability exists amongst these awards. Some awards such as *Novenergia* and *Antin* awarded over three-fourths of the claimed damages, while *InfraRed*, *Cube*, and *NextEra* awarded around half or less of the claimed damages. *NextEra*, the "*biggest*" case in this category in

221 The matter was not analyzed in detail by the Tribunal.
222 Date of the Decision on Responsibility and on the Principles of Quantum.
223 Date of the Decision on Jurisdiction, Liability and the Directions on Quantum.
224 Award not yet available. This is the date of the Decision on Jurisdiction, Liability and Directions on Quantum.

terms of quantum, awarded a total of 56 per cent of the claimed damages. This could be explained by the fact that *NextEra* followed an investment-based methodology. Such methodology often does not properly reflect many assets and liabilities and does not consider "*the value of the entity as a whole.*"[225] *Novenergia* yielded investors the highest percentage of their claim at 87 per cent. This could, in part, be explained by the choice of a later valuation date. Even though the effect of the measures found not to be in breach of FET was taken into consideration during the calculation of historic damages, the choice of an *ex post* valuation affected the information available to determine its value. In the words of *PV Investors*, the choice of a later valuation date means taking into account "*later evolution of prices, interest rates, or other inputs.*"[226]

Regarding the cases that found that even measures prior to 2013–2014 breached the FET standard, one might expect these tribunals to award a higher percentage of the amounts claimed by investors. This seems to be the case for *9REN*, but not for *Masdar*, which only awarded a little over a third of the damages claimed by the Claimants. This might be due to the effect of the adjustment of several parameters which the author has not analysed in this article, such as the application of an illiquidity discount, adjustments to the expected revenues, or adjustments of the discount rate.[227]

On the other hand, the awards finding that only specific aspects of the 2013–2014 reforms, such as the remuneration clawback, breach the FET standard, award only a small percentage of the claimed damages (24 per cent on average). This is logical since the bulk of the 2013–2014 measures —which were also included in the claimants' claims— were incorporated into the calculation of the But-For scenario. Just the remuneration clawback was factored out of such calculation. Awards such as *RREEF*, which also considered that Spain had breached the FET standard by failing to provide a reasonable rate of return, further yield a low ratio of damages awarded to damages claimed. It should be kept in mind that *REEFF* found that the compensation arising from Spain's failure to provide a reasonable rate of return absorbed the compensation deriving from the remuneration clawback.

Unsurprisingly, *PV Investors*—an award finding that no measure in particular breached FET and that Spain only breached FET by failing to provide a reasonable rate of return for some of the Claimant entities—has the lowest ratio of damages awarded to damages claimed. This was the biggest damages claim against Spain at 1.9 billion Euro and while the case was technically decided in favour of the investor, only damages amounting to five percent of the original claim were awarded. As described by Spanish media,[228] this may be seen as a "*victory*" for Spain.

Lastly, regarding the expected operating lifetime of the plants, it would appear that tribunals assuming a 25-year lifetime, on average, seem to have awarded a lower percentage of the claimed damages (at 46.95 per cent) when compared to tribunals assuming a 30-year life expectancy (56.85 per cent). This difference might not seem substantial; however, we should consider that *PV Investors*, which awarded the lowest percentage of claimed damages out of any of the analysed cases,

225 MARBOE, *supra* note 6, at 201–203.
226 PV Investors, PCA Case No. 2012-14, Award, ¶ 721 (Feb. 28, 2020).
227 Masdar, ICSID Case No. ARB/14/1, Award, ¶¶ 653–654 (May 16, 2018).
228 Spanish newspaper "El Confidencial" reported that Spain was opening the figurative "champagne bottle" in its renewable energy troubles, given that the largest claim against Spain was "left in nothing"; *See* R. MÉNDEZ, ESPAÑA ABRE EL CHAMPÁN EN LA GUERRA REMOVABLE: UN ARBITRAJE DE 2.000 MILLONES QUEDA EN NADA, El Confidencial (Feb. 29, 2020).

is a case assuming a 30-year operating life expectancy. If we were to eliminate the effects of this outlier, then we would find that the average ratio of damages awarded to damages claimed for the cases assuming a 30-year life expectancy skyrockets to 69.86 per cent. This is not surprising given that many of the awards assuming a 25-year life expectancy do so by rejecting claimant's assumptions of 40-year life expectancy. In consequence, there is a 15-year gap between the life expectancy assumed by the claimant and that assumed by the tribunal. By contrast, in the awards assuming a 30-year life expectancy, claimants had often assumed only a 35-year life expectancy. Thus, the gap between the claimant's and the tribunal's life expectancy assumptions is much smaller in those cases where a 30-year life expectancy was adopted by the tribunal. This also means that the spread between damages claimed and damages awarded will often be larger for cases assuming a 25-year life expectancy.

As a conclusion to this article, the author must remind the readers of the fundamental importance of damages in international arbitration. As the Latin aphorism states, *ubi remedium, ibi ius* (where there is a remedy, there is a law). Indeed, in the context of investor-state arbitration, compensation determines what a "*win*" for an investor exactly means. Consequently, as analysed, decisions regarding seemingly technical issues of damages calculation and valuation, such as using an earlier or later valuation or using one valuation methodology and not another can have huge impacts on decisions on quantum, turning an award decided in favour of the investor into a pyrrhic victory or, even worse, into a *de facto* defeat for the investor. The Spanish renewable energy cases showcase this fact particularly well, since they shared a common legislative background yet gave rise to a whole plethora of different approaches to valuation and damages calculation—some awards compelling the respondent to pay up to 87 per cent of the claimed amounts, others finding that only five per cent of the damages claimed should be compensated.