INTERNATIONAL CENTRE FOR SETTLEMENT OF INVESTMENT DISPUTES

In the arbitration proceeding between

HYDRO ENERGY 1 S.À R.L. AND HYDROXANA SWEDEN AB

Claimants

and

KINGDOM OF SPAIN

Respondent

ICSID Case No. ARB/15/42

AWARD

Members of the Tribunal
Lord Collins of Mapesbury, LL.D., F.B.A., President
Professor Rolf Knieper, Arbitrator
Mr Peter Rees, QC, Arbitrator

Secretary of the Tribunal
Ms Ana Constanza Conover Blancas

Date of dispatch to the Parties: 5 August 2020

Representation of the Parties

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I. INTRODUCTION

1. This case concerns a dispute submitted to the International Centre for Settlement of Investment Disputes ("**ICSID**" or the "**Centre**") on the basis of the Energy Charter Treaty, which entered into force on 16 April 1998 with respect to the Grand Duchy of Luxembourg, the Kingdom of Sweden and the Kingdom of Spain (the "**ECT**"), and the Convention on the Settlement of Investment Disputes between States and Nationals of Other States, which entered into force on 14 October 1966 (the "**ICSID Convention**").

2. The claimants are Hydro Energy 1 S.à r.l. ("**Hydro Energy**"), a private limited company (*société à responsabilité limitée*) incorporated under the laws of Luxembourg, and Hydroxana Sweden AB ("**Hydroxana**"), a private limited liability company (*Aktiebolag*) incorporated under the laws of Sweden (together, the "**Claimants**").

3. The respondent is the Kingdom of Spain ("**Spain**" or the "**Respondent**").

4. The Claimants and the Respondent are collectively referred to as the "**Parties**". The Parties' representatives and their addresses are listed above on page (i).

5. This dispute relates to measures implemented by the Respondent that modified the regulatory and economic regime applicable to producers of hydropower generation energy, which allegedly negatively impacted the Claimants' investment (equity and debt interests) in various Spanish companies that own and operate thirty-three hydropower generation plants in Spain with a total installed production capacity of 106.788 megawatts.

6. The Claimants allege that Spain has breached its obligations under Article 13 of the ECT by means of the indirect expropriation of their investment. They also submit that the Respondent has failed to comply with the following obligations under Article 10(1) of the ECT: ***(a)*** to accord fair and equitable treatment, ***(b)*** not to impair by unreasonable or discriminatory measures the management, maintenance, use, enjoyment or disposal of the Claimants' investment, and ***(c)*** to accord the most constant protection and security. The Claimants seek compensation for damage caused as a result of the Respondent's violations of the ECT.

7. In its Decision on Jurisdiction, Liability and Directions on Quantum dispatched to the Parties on 9 March 2020 (the "**Decision**") the Tribunal, having declared it has jurisdiction over the Claimants' claims in the present arbitration and dismissing the Claimants' claim under ECT Article 13(1), went on to declare and direct as follows:

> (3) the Tribunal declares that the Respondent might (or would) be in breach of ECT, Article 10(1), if and to the extent that the remuneration of each of the plants in the Ondina and Xana portfolios failed to accord with a reasonable post-tax rate of return in the small-hydro market in Spain on the basis of WACC plus 1%, with the risk-free rate being the Spanish 10 year bond rate of 4.398%;
>
> (4) the Tribunal accordingly directs the Parties to endeavour to agree on the bases in Section VIII B hereof (i) an agreed post-tax reasonable rate of return calculated using the WACC as at June 2013; and (ii) agreed post-tax holding IRRs for each of the plants;[1]

8. The Tribunal gave directions for the Parties to report to the Tribunal within 60 days as to whether agreement had been reached and, if not, on the principal areas of disagreement. The Tribunal also stated it would give such further directions as may be necessary.

9. The Decision constitutes an integral part of this Award and it is hereby incorporated as **Annex A**. The Decision sets out the full procedural history of this arbitration, the factual background to the dispute, the submissions made by the Parties and the Parties' respective requests for relief. In consequence, none of that is repeated here.

10. In this Award, unless the context otherwise requires, the Tribunal adopts the abbreviations used in the Decision.

II. POST-DECISION PROCEDURAL HISTORY

11. On 26 March 2020, the Parties notified the Tribunal that, in order to facilitate discussions between the Parties and their respective experts, with a view to reaching agreement within the timeframe set by the Tribunal (i.e., by 8 May 2020), the Parties had agreed the following protocol:

[1] Decision, ¶ 770.

> 1. By Monday 30 March 2020, the Parties' respective quantum experts shall seek to agree a schedule for discussions on the issues identified by the Tribunal.
>
> 2. By Monday 4 May 2020, the Parties' experts shall endeavour to reach agreement on the identified issues and prepare a joint memorandum that identifies areas of agreement and any areas of disagreement that remain, along with reasons for the disagreement.
>
> 3. By Friday 8 May 2020, the Parties shall submit a joint communication to the Tribunal, providing a copy of the experts' joint memorandum and, if necessary, proposing a procedural timetable for submissions on any areas of disagreement.
>
> 4. All discussions and drafts exchanged between the experts, and with and between the Parties, in accordance with this protocol shall be on a "without prejudice" basis, such that only the final agreed joint memorandum may be presented to the Tribunal.

12. On 24 April 2020, the Parties sought an extension of time of 14 days to the deadlines contained in paragraphs 2 and 3 of the agreed protocol which was granted by the Tribunal on the same day.

13. On 22 May 2020, the Parties submitted to the Tribunal the experts' final Joint Memorandum dated 22 May 2020 (the "**Joint Memorandum**"), together with the Joint Excel Model referred to therein (the "**Joint Model**"). The Parties also stated that they did not consider further submissions were necessary in light of the positions taken in the Joint Memorandum, but that should the Tribunal deem further submissions helpful, the Parties would be happy to liaise in order to agree a procedural timetable for such submissions.

14. The Claimants stated that if the Tribunal wished to hear orally from the experts and counsel in relation to the remaining areas of disagreement, a virtual hearing of up to a maximum of one day would be appropriate. The Respondent stated it did not consider a hearing to be necessary.

15. On 10 June 2020, the Tribunal notified the Parties that it did not require a further hearing.

16. On 17 June 2020, the Respondent filed a request for the Tribunal to decide on the admissibility of a new document, namely the Decision on Annulment issued on

11 June 2020 in *Eiser Infrastructure Limited and Energía Solar Luxembourg S.à r.l. v Kingdom of Spain*, ICSID Case No. ARB/13/36. On 22 June 2020, the Claimants filed observations on the Respondent's request of 17 June 2020. On 23 June 2020, the Tribunal decided on the admissibility of the new document.

17. On 24 June 2020, each Party filed an updated statement of costs.

18. On 22 July 2020, the Tribunal declared the proceeding closed.

III. THE JOINT MEMORANDUM

(1) Areas of Agreement and Disagreement

19. The Joint Memorandum contains a few areas of agreement between the experts, but significant areas of disagreement such that detailed analysis of the arguments of the Parties' experts set out in the Joint Memorandum is necessary for the Tribunal to determine the compensation due to the Claimants.

20. The experts do agree:

(1) That the internal rate of return ("**IRR**") is to be computed for each individual plant, post-tax, and that the IRR is to be computed based on the value of the plants as of June 2013 and the projected free cash flows to the firm that each individual plant is expected to generate from June 2013 through the end of their concession in what is described as the "actual" scenario; and

(2) To use the cash flows previously modelled in these proceedings under the "actual" scenario to project cash flows.[2]

21. The experts also agree that wherever possible, they use cash flow components for individual plants. Where financial statements and cash flow forecasts are aggregated at the portfolio level, they allocate cash flow forecasts to individual plants based on their installed capacity and projected cash flows.[3]

[2] Joint Memorandum, ¶ 3(a)-(b).
[3] Joint Memorandum, ¶ 3(b).

22. The experts disagree, however, on how to compute the post-tax reasonable rate of return ("**PTRRR**") of the individual plants and on the post-tax holding IRRs achieved by the individual plants in the "actual" scenario. This is, principally, because they cannot agree how to calculate the value of the individual plants as of June 2013 and, much less significantly, whether to compute the IRRs for all plants separately or to combine cash flows for ***(i)*** the Porma and Ferreras plants and ***(ii)*** the Baga and Pendis plants.[4]

23. Once the PTRRR and the IRRs are calculated, the experts do agree on the overall methodology to calculate the economic impact of the disputed measures on the individual plants as of June 2013 according to the Decision, namely that, following the Tribunal's instructions, the actual IRRs of the individual plants are compared to the PTRRR. However, differences between the experts remain as to three parameters in the calculation of the economic impact of the disputed measures on the individual plants:

(1) Whether to include or exclude compensation for the Alange plant;

(2) Whether the discount rate used should be equal to or different than the PTRRR; and

(3) Whether to cap the PTRRR for individual plants at the IRR that would have been achieved under RD 661/2007.[5]

24. Finally, the experts disagree on whether compensation due to the Claimants must be computed as arising from their equity and debt investments, or whether compensation due to the Claimants is equal to the economic impact of the disputed measures on the plants.[6]

25. In addition to the Joint Memorandum, the experts have also provided the Tribunal with a Joint Model which they say has

> built-in options that can be used to select different permutations of the foregoing areas of disagreement, and to visualize the resulting compensation calculation.[7]

[4] Joint Memorandum, ¶ 4.

[5] Joint Memorandum, ¶ 5.

[6] Joint Memorandum, ¶ 6.

[7] Joint Memorandum, ¶ 7 (internal footnote omitted).

26. Prior to considering each of the areas of disagreement between the experts, the Tribunal notes that, notwithstanding their differences, both experts conclude that, in respect of some of the small-hydro plants at least, in both portfolios, the remuneration of those plants would fail to accord with a reasonable post-tax rate of return going forward from the New Regime and, in consequence, compensation is due to the Claimants.

27. In consequence, and in accordance with the conclusions reached by the Tribunal in the Decision, the Respondent is in breach of ECT Article 10(1).

28. The manner in which each expert has calculated the compensation due to the Claimants, and the results of those calculations, is set out very briefly in the following paragraphs. Having done that, the Tribunal considers in detail the areas of difference between the experts and, by applying its findings in respect of each of those areas of differences to the Model, concludes what compensation is due to the Claimants from the Respondent.

29. Professor Spiller of Compass Lexecon is the Claimants' expert and Dr Flores, previously of Econ One and now of Quadrant Economics, is the Respondent's expert.

(2) Summary of Compensation Calculation

30. Each expert provides a figure for a PTRRR, but calculated in different ways. Each expert provides figures for the value of the individual small-hydro plants in the Xana and Ondina portfolios, but calculated in different ways. Each expert arrives at a figure for compensation due to the Claimants, but calculated on different bases.

31. Professor Spiller calculates the PTRRR at 7.97% and, having done so, concludes that the impact of the disputed measures on the individual plants amounts to EUR 160,597,000 as of 1 June 2013.[8] Professor Spiller, however, provides an alternative calculation which caps the plants' returns such that the "but-for" remuneration of each plant does not exceed the return based on the original RD 661/2007 regulation (i.e., if a plant's IRR under the RD 661/2007 remuneration is less than 7.97%, Professor Spiller adopts the IRR under RD 661/2007 as the target rate of return).[9]

[8] Joint Memorandum, ¶ 35 and Table 1.
[9] Joint Memorandum, ¶ 34.

32. His rationale for this approach is that since the IRR expected to be obtained by some of the Claimants' plants under RD 661/2007 might be lower than the PTRRR, a mechanical application of the PTRRR for such plants could produce returns higher than those which they would have received under RD 661/2007, a result which Professor Spiller considers may be contrary to the intentions of the Tribunal.[10]

33. Applying this cap, in effect, means that no plants would be granted returns higher than those which they were receiving under RD 661/2007 (with the overall impact of reducing damages). It prevents the scenario in which the "but-for" returns for certain plants, according to the Tribunal's methodology, would have been higher than the returns being obtained under the regulation before the disputed measures were implemented.[11]

34. Using this cap, Professor Spiller calculates that the impact of the disputed measures on the individual plants amounts to EUR 88,556,000.[12]

35. Having made that calculation, Professor Spiller goes on to note that the Claimants hold equity and debt investments in the portfolio companies that hold the plants and, in order to compute the compensation due to the Claimants, one must take into account the impact of the disputed measures on the Claimants' financial debt.[13]

36. Professor Spiller explains that the operating companies which own the Xana and Ondina portfolios restructured their debts, meaning that the debt holders absorbed part of the impact of the disputed measures on the plants' cash flows. He states that if one were to assess compensation to the Claimants exclusively by focusing on the economic impact on the plants (i.e., without focusing on damages to the Claimants), one would not be accounting for mitigation to those plant-level damages that was achieved through the debt restructuring in the "actual" scenario. To account for such mitigation, Professor Spiller computes the compensation due to the Claimants as the sum of the impact of the disputed measures on their equity and debt investments.[14]

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[10] Joint Memorandum, ¶ 19.

[11] Joint Memorandum, ¶ 20.

[12] Joint Memorandum, ¶ 34 and Table 1.

[13] Joint Memorandum, ¶ 41.

[14] Joint Memorandum, ¶¶ 41 and 42.

37. Professor Spiller assesses total damages to the Claimants' equity investments at EUR 37,057,000 as of 1 June 2013 based on the capped calculation. He argues, therefore, that the equity holders were able to mitigate the impact of the disputed measures by approximately EUR 51.5 million[15] by getting lenders to absorb this portion of damages through the restructuring of the portfolio companies' financial debt. As the Claimants also hold a debt investment, Professor Spiller states that they absorbed a part of the burden that was shifted to lenders and suffered damages to debt holdings of EUR 4,362,000.[16]

38. Professor Spiller concludes by saying:

> In spite of suffering damages to its debt holdings of EUR 4.4 million, Claimants' net mitigation remains significant, at EUR 47.1 million. In other words, this net mitigation has to be deducted from the overall damages to the plants to accurately reflect the actual losses suffered by the Claimants as a result of the Measures.[17]

39. Based on the capped calculation, Professor Spiller assesses total damages to the Claimants' equity investments at EUR 37,057,000 as of 1 June 2013, and damages to the Claimants' debt investment at EUR 4, 362,000 as of 1 June 2013, making a total of EUR 41,419,000.[18]

40. If the same calculation were to be carried out without applying the cap, the equivalent figure for damages to the Claimants' equity and debt investments would be EUR 98,199,000.[19]

41. Accordingly, depending on the approach taken, Professor Spiller provides a selection of quantum amounts ranging from EUR 160,597,000 to EUR 41,419,000.

[15] i.e., EUR 88,556,000 million less EUR 37,057,000.

[16] Joint Memorandum, ¶ 46 and Table 2.

[17] Joint Memorandum, ¶ 46 (internal footnote omitted).

[18] Joint Memorandum, ¶ 47 and Table 2.

[19] Joint Memorandum, ¶ 48 and Table 2.

42. Notwithstanding the Tribunal's directions to do so,[20] Dr Flores has not calculated a PTRRR based on WACC plus 1% with the risk free rate being the Spanish 10 year bond rate of 4.398%. The extent of Dr Flores analysis and calculation is as follows:

> As I have explained in these proceedings, the reasonable profitability rates in the renewable energy sector since the early 2000s have been around 7% post-tax. Hence the PTRRR is 7%.[21]

43. Dr Flores calculates the IRRs of the individual plants in the Xana and Ondina portfolios and, using those IRRs, calculates the compensation that would be required as of June 2013 to achieve his 7% PTRRR. For the Xana portfolio, the compensation figure he calculates is EUR 8,791,000 and for the Ondina portfolio EUR 369,000, making a total of EUR 9,160,000.[22]

44. Having done so, however, Dr Flores argues that one of the plants in the Xana portfolio, the Alange plant, should be excluded from the calculation because of poor performance unrelated to the disputed measures.[23] The compensation Dr Flores calculates for the Alange plant is EUR 5,041,000.[24] Thus, removing Alange results in compensation for the Xana portfolio of EUR 3,750,000 and the Ondina portfolio of EUR 369,000, making a total of EUR 4,119,000.[25]

45. Accordingly, depending on the approach taken, Dr Flores provides alternative quantum amounts of either EUR 9,160,000 or EUR 4,119,000.

46. The Tribunal now turns to the calculation of the compensation due to the Claimants as a result of this breach. In doing so, the Tribunal considers the approaches taken by each of the experts in the Joint Memorandum with respect to the following issues:

(1) The PTRRR;

(2) The value of the plants as of June 2013;

[20] Decision, ¶¶ 762-766 and 770(4).
[21] Joint Memorandum, ¶ 60 (internal footnote omitted).
[22] Joint Memorandum, ¶ 75 and Table 4.
[23] Joint Memorandum, ¶ 76.
[24] Joint Memorandum, Table 4.
[25] Joint Memorandum, ¶ 78.

(3) The definition of individual plants;

(4) The inclusion, or otherwise, of the Alange plant;

(5) Discount rates;

(6) Whether PTRRR should be capped at the RD 661/2007 level; and

(7) Whether a further calculation is needed to account for the impact on the Claimants' equity and debt investments in the portfolios.

IV. THE TRIBUNAL'S ANALYSIS

(1) The PTRRR

47. As already noted, Dr Flores has not calculated a PTRRR in the manner directed by the Tribunal. Professor Spiller has done so, but his calculations are the subject of a number of criticisms by Dr Flores. Accordingly, the Tribunal's starting point is Professor Spiller's calculation of a PTRRR of 7.97% against which the criticisms of Dr Flores will be evaluated.

48. Dr Flores notes that the *RREEF v Spain*[26] tribunal calculated a PTRRR of 6.86% and argues that Professor Spiller's PTRRR of 7.97% is not consistent with the decision of that tribunal because the levered WACC that Professor Spiller calculates assumes financial risk from leverage, which was excluded from the WACC in *RREEF v Spain*. Dr Flores says that Professor Spiller's unlevered WACC, consistent with the *RREEF v Spain* approach, would be 6.03% and adding a 1% premium would result in a 7.03% PTRRR.[27]

49. Dr Spiller's response to this is that his WACC calculation does not assume financial risk from leverage because his WACC is computed with a capital structure of 49% debt, 51% equity, which he says is comparable to the debt 60%/equity 40% used in *RREEF v Spain*.[28] He says that his post-tax WACC of 6.97% is in line with the post-tax WACC applied by the *RREEF v Spain* tribunal once the different methodological

[26] *RREEF v Spain* Decision on Responsibility.

[27] Joint Memorandum, ¶¶ 61-62.

[28] Joint Memorandum, fn 15.

approaches are accounted for. He states that the quantum experts in the *RREEF v Spain* arbitration compute an unlevered WACC, which uses an unlevered beta (this is because those experts apply a different methodological approach, while in the present case the cash flows are discounted to account for leverage, and so a levered beta is appropriate).[29]

50. Professor Spiller confirms that his unlevered WACC as of June 2013, using the Spanish risk-free rate of 4.398%, is 6.03%, which, he states, is in line with the 5.86% unlevered WACC calculated by the *RREEF v Spain* tribunal.[30] Using this figure would result in a PTRRR of 7.03%.

51. In the Decision, the Tribunal indicated very clearly that it expected the approach adopted in *RREEF v Spain* to be adopted in calculating the PTRRR[31] and that it expected the PTRRR was likely to be somewhere in the region of 5.5% to 7%.[32] One of the factors which gave rise to that expectation was, as Dr Flores points out, when evaluating the reasonable rate of return in his second report, Professor Spiller used a PTRRR 6.24% as of 2013. Dr Flores then calculates that, based on the Spanish 10 year bond rate of 4.398% specified in the Decision, the post-tax WACC would be 6.10% as of 2013.[33]

52. The Tribunal considers that, taking all the arguments of the respective experts into account, had the correct approach been taken by Professor Spiller in calculating the WACC as at June 2013, the PTRRR would be much closer to 7% than to 8% which is the result of Professor Spiller's calculation of 7.97%.

53. As is explained in more detail later in this Award, the Parties have provided the Tribunal with the Joint Model, which has been jointly agreed by the experts, in order to calculate the compensation due to the Claimants. So far as the PTRRR is concerned, the Joint Model only permits two options for the Tribunal to input: either 7.97% or 7%. Given

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[29] Joint Memorandum, fn 18.
[30] Joint Memorandum, fn 18.
[31] Decision, ¶ 740 *et seq*.
[32] Decision, ¶ 746.
[33] Joint Memorandum, ¶ 62.

the arguments included in the Joint Memorandum by Professor Spiller, the Claimants could have included input options of 7.03% or 7.10% as well, but have failed to do so.

54. In consequence, in choosing between the PTRRRs put forward by each expert, 7% by Dr Flores and 7.97% by Professor Spiller, the Tribunal has concluded that the PTRRR of 7% is the most likely to be correct. This is not as a result of the manner in which Dr Flores has calculated that figure, but represents as close an approximation as possible to the figure the Tribunal concludes would have been established had it been correctly calculated by Professor Spiller.

(2) The Value of the Plants as of June 2013

55. To determine the value of the plants as of June 2013 Professor Spiller relies on the book value of the plants as presented in the companies' respective financial statements as of a date as close to June 2013 as possible. Professor Spiller notes that the book value of the assets, as reported in the financial statements, is an audited figure prepared by a third party in the normal course of business. He also states that the book value is independent of historical remuneration received by the plants, and so is consistent with the instructions of the Tribunal[34] in this regard.[35]

56. Professor Spiller justifies his use of book values as, under accounting rules, an asset's book value must be periodically assessed, and while it can be presented in financial statements at a value lower than its fair market value, it cannot be presented at a value higher than its fair market value. The book value has also been ratified by the auditors.[36]

57. To establish the book value as of June 2013 Professor Spiller relies on the Xana portfolio's book value of EUR 35,000,000 as stated in its 31 May 2013 financial statements and the Ondina portfolio's book value of EUR 211,200,000 as stated in its 31 December 2012 financial statements.[37]

[34] Decision, ¶ 718.
[35] Joint Memorandum, ¶ 21.
[36] Joint Memorandum, ¶ 22.
[37] Joint Memorandum, ¶ 24.

58. There is no available book value data for the individual plants, and so Professor Spiller allocates the book value among the plants *pro rata* based on the product of each of the plant's installed capacity and the number of years remaining on the concession.[38]

59. Dr Flores adopts an entirely different approach. He states that his calculation of the value of the plants as of June 2013 is carried out as follows:

> (i) Take the aggregate historical capital expenditures shown in the financial statements of the entities holding each portfolio of plants, calculated previously in these proceedings.
>
> (ii) Allocate those aggregate historical capital expenditures to individual plants based on the year the expenditure was incurred and the year the plants were constructed.
>
> (iii) Calculate the ratio of the remaining years of life as of June 2013 to the total years the individual plant was expected to operate based on the end date of the relevant concession.
>
> (iv) Multiply the historical capital expenditures by the ratio of years remaining to total years.[39]

60. The value of the plants as calculated by Dr Flores are EUR 34,800,000 for the Xana portfolio and EUR 57,500,000 for the Ondina portfolio.

61. Dr Flores has two principal objections to the approach to valuation adopted by Professor Spiller. The first is that, under Professor Spiller's approach, non-cash accounting adjustments are taken into account. Dr Flores asserts that non-cash accounting adjustments that do not involve new capital expenditures should not be considered in reasonable return calculations. His calculations, therefore, exclude any non-cash accounting adjustments.

62. By way of example, Dr Flores refers to an adjustment that was made to the accounting value of the Ondina portfolio in 2010.[40]

63. Professor Spiller's response is that accounting adjustments are a standard accounting practice, subject to auditing, to reflect the persistent value of the plants, internalising

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[38] Joint Memorandum, ¶ 25.

[39] Joint Memorandum, ¶ 64 (internal footnote omitted).

[40] Joint Memorandum, ¶ 67.

the long life of the plants and the investors' expectations of their productivity and profitability.[41]

64. In support of his position, Professor Spiller quotes[42] from Dr Flores' First Report which states:

> Typically, an asset is recorded at actual historical cost. If the value of that asset is perceived to be higher than the book value at actual historical cost, then a company may revalue those assets.[43]

65. Professor Spiller further notes that the accounting adjustment of the Ondina portfolio did not stem entirely from the 2010 revaluation as other revaluations also took place previously, such as in 1999. He also points out that the revaluations were performed prior to the Claimants' acquisition.

66. Dr Flores also argues that PTRRR is meant to give a reasonable return on the cost of constructing renewable energy facilities. He seeks to demonstrate this using an example[44] which is dealt with by Professor Spiller as follows:

> Dr. Flores hypothesizes in paragraph 68 below that "if a hydro plant were built in 2013 at a construction cost of EUR 1 million, we would be interested in the reasonable return on that EUR 1 million value, regardless of whether the plant's accountants and auditors later adjusted the book value of the plant to EUR 2 million based on their own perceptions of market value," and that "calculating reasonable returns on a revalued market value exceeding the construction cost would lead to untenable results, as it would create the incentive for investors to keep selling their plants to each other at higher and higher values in order to obtain higher remuneration from the government." First, this example is illogical —if the value of such plants was EUR 2 million, while they cost only EUR 1 million to build, then the market would become flooded with investors who will invest in new plants rather than bid up the price of already built plants. Second, this example does not fit the case at hand, since if the investment cost of the new plant was in fact EUR 1 million, and the reasonable return was computed on that EUR 1 million amount, then the value of the plants would not be EUR 2 million. Third, and more importantly, as we have explained above, an

[41] Joint Memorandum, ¶ 27.

[42] Joint Memorandum, fn 47.

[43] First Econ One Report, ¶ 88.

[44] Joint Memorandum, ¶ 68.

> asset's audited book value cannot be presented at a value higher than its fair market value, and this value would have to be in line with legitimate expectations. As such, Dr. Flores's ever-escalating-incentive argument is unrealistic and does not apply to the case at hand.[45]

67. The Tribunal accepts Professor Spiller's reasoning in respect of this example. As stated in the Decision, the Tribunal considers that

> the essence of the regime was that it was intended to promote, and <u>ensure the continuance of</u>, renewables having a reasonable rate of return for their future lifetime balanced against the cost to the consumer.[46]

68. The essence of the regime was not simply to encourage construction of new renewable facilities, but also to ensure that investment was made in valuable and previously constructed facilities in order to ensure they continued to produce renewable energy.

69. Dr Flores makes reference to the decisions of tribunals in a number of other arbitrations brought against the Respondent arising out of the disputed measures,[47] but these decisions do not support Dr Flores' proposition that the IRR is calculated on the cost of <u>constructing</u> renewable energy facilities; they all refer to <u>investment</u> in renewable energy facilities and rates of return on <u>investments</u> made.

70. The second objection raised by Dr Flores to the approach to valuation adopted by Professor Spiller is that Professor Spiller ignores the information available on the actual investment cost of the individual plants. Dr Flores argues that Professor Spiller ignores available information regarding the historical investment cost of the individual plants and ignores the fact, as Dr Flores contends, that older plants should comprise a smaller share of the value as of June 2013 than newer plants. Dr Flores notes that this problem affects mainly the Xana portfolio, the plants of which were constructed in the 1990s and early 2000s and have a shorter useful life than those in the Ondina portfolio.[48]

71. Professor Spiller disagrees and notes, in relation to the contention that older plants should have a smaller share of the value, that an older hydro plant that has a very long

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[45] Joint Memorandum, ¶ 27(c) (internal footnote omitted).

[46] Decision, ¶ 690 (emphasis added).

[47] Joint Memorandum, fn 124.

[48] Joint Memorandum, ¶ 70.

and productive useful life remaining would be much more valuable than a newer hydro plant with a shorter useful life, given the same capacity and productivity.[49] There is clear and obvious sense in this argument.

72. The Tribunal takes the view that, if the criticisms made by Dr Flores had serious merit, a significant difference in the valuation of the Xana portfolio between Dr Flores and Professor Spiller would be apparent, not least because the Xana portfolio is much more modern than the Ondina portfolio. It appears that the Xana plants were put into operation between 1990 and 2004, whereas the Ondina plants were put into operation between 1906 and 1986.[50] Accordingly, the historical data upon which Dr Flores relies for the Xana portfolio are likely to be fairly accurate and, certainly, as stated in paragraph 76 below, much more so than that for the Ondina portfolio. However, as already noted, Dr Flores values the Xana portfolio at EUR 34,800,000 and Professor Spiller values it at EUR 35,000,000.

73. As for Dr Flores' overall approach of using historical capital expenditures on the plants, Professor Spiller finds this approach to be unreliable and inappropriate for a number of reasons. There is no consistent investment cost information for the plants from the time of their construction, there is no adjustment for inflation, the focus on capital expenditure disregards maintenance operational expenditure and capital expenditure is depreciated which fails to recognise that, with proper maintenance, the productivity of the plants does not deteriorate over time.[51]

74. Dr Flores does not seek to defend these criticisms in detail but simply states that although Professor Spiller claims that he excludes several components, the valuations arrived at by both of them for the Xana portfolio are similar.

75. It is obvious that the respective values calculated by both experts for the Xana portfolio will not assist the Tribunal in concluding which of the methods adopted to value the plants as at June 2013 is correct. The different valuations of the Ondina portfolio, however, do demonstrate that fundamentally different results will be obtained in certain

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[49] Joint Memorandum, ¶ 27(d).

[50] First Econ One Report, ¶¶ 39, 73-75.

[51] Joint Memorandum, ¶ 29.

circumstances depending upon which method is adopted. Professor Spiller values it at EUR 211,200,000 and Dr Flores at EUR 57,500,000.

76. As Professor Spiller points out, there is no information available for the Ondina portfolio prior to 1989 despite 87% of the portfolio's capacity being on line by 1930 and, in any event, the available capital expenditure figures for 1989 onwards are not based on contemporary data but on financial statements from 1999 onwards.[52] Dr Flores does not dispute this and it is clear to the Tribunal, therefore, that the figures used by Dr Flores for capital expenditure on the Ondina portfolio are inherently unreliable.

77. Also of significance is the question of operational maintenance expenditures on the plants over the years which maintain productivity, extend useful life and must, therefore, contribute to value. Professor Spiller asserts that Dr Flores disregards maintenance expenditure by his focus solely on capital expenditure. Professor Spiller states that relying solely on historical capital expenditures will thus severely underestimate the value of the plants as of June 2013 as the undepreciated value would not account for the fact that the maintenance expenditures have allowed the plant to continue operating efficiently without serious degradation in capacity and productivity.[53]

78. Professor Spiller refers to Dr Flores' First Report in which he notes that, including only the actual historical capital investments, the book value of the Ondina plants will decline to zero by 2017.[54] In contrast, Professor Spiller points out that the Ondina plants are generating electricity productively, and have signed concession agreements extending their useful lives up to 2061.[55]

79. Professor Spiller also states that the Respondent itself has acknowledged in its cash flow computations that the productivity of small-hydro plants does not degrade over time. He points out that while Order 1045/2014 implements a 0.5% degradation rate for

[52] Joint Memorandum, ¶ 30(a).
[53] Joint Memorandum, ¶ 30(d) and (e).
[54] First Econ One Report, ¶ 120.
[55] Joint Memorandum, ¶ 30(e).

technologies such as photovoltaic and wind turbines, it does not introduce such degradation for hydroelectric plants.[56]

80. Professor Spiller concludes by saying:

> One way to include the value from maintenance expenditures in the plants and any associated concession extensions is to include the revaluations as reported in the audited financial statements. Such book value revaluations are evident as far back as 1989, and so even by that stage the plants were deemed to be worth more than their depreciated historical cost. Revaluations account for the value added by the maintenance of the plants between the date of the historical investment and June 2013, and so must be included.[57]

81. It is clear to the Tribunal that the value of the plants stems from more than just the historical capital expenditures alone. That is amply demonstrated by the conclusion that the book value of the plants in the Ondina portfolio would be zero by 2017 if that approach was taken.

82. Certainly, in relation to small-hydro plants, maintenance expenditure must be taken into account in establishing the value of the plants. Dr Flores asserts that failing to take account of maintenance expenditures is beside the point in a reasonable return calculation,[58] but his explanation which refers to a hydro plant costing EUR 1 million to construct but which has a book value of EUR 2 million[59] is not convincing, as already noted in paragraph 67 above.

83. Further, in one of the decisions to which Dr Flores refers, *The PV Investors v The Kingdom of Spain*[60] the tribunal specifically states:

> More specifically, Article 30.4 of the 1997 Electricity Law provides for the achievement of "reasonable rates of return with respect to the cost of money on the capital market". Accordingly, an investor is entitled to a return, i.e. it is entitled to make a profit after having paid its capital and operating expenses.

[56] Joint Memorandum, ¶ 30(e) and fn 66.

[57] Joint Memorandum, ¶ 30(e) (internal footnotes omitted).

[58] Joint Memorandum, fn 126.

[59] Joint Memorandum, ¶ 68.

[60] *The PV Investors v The Kingdom of Spain*, PCA Case No. 2012-14, Award, 28 February 2020, ¶ 617 (as cited in Joint Memorandum, fn 124).

84. The Ondina portfolio clearly had a value in 2011 when the Claimants acquired it, and has a value today. Dr Flores' approach to valuation seeks to calculate that value on the basis of historic capital expenditure with the result that, by 2017 the Ondina portfolio would have no value. There is no doubt that the historic capital expenditure figures used by Dr Flores for the Ondina plants are unreliable, and his approach does not adequately reflect the maintenance expenditure on the plants over the years which has preserved their productivity and maintained their value.

85. It may be that the approach taken by Professor Spiller, which reflects accounting adjustments in valuing the plants, is not entirely appropriate, and that his apportionment of value between the individual plants, having used a portfolio book value, is not entirely accurate. However, there is no doubt in the minds of the Tribunal that the method adopted by Professor Spiller to calculate the value of the plants is more reliable than that used by Dr Flores.

86. It is notable that, in the case of the Xana portfolio, comprising more modern plants than those in the Ondina portfolio, and in respect of which Dr Flores had access to much more accurate historical information, the valuations reached by the experts were almost identical. In the minds of the Tribunal that indicates that whilst there may be some unreliability in the approach taken by Professor Spiller, it is not significant and that the Tribunal can, in consequence, rely upon Professor Spiller's approach in determining the value of the plants as at June 2013.

87. The Tribunal notes that, as an alternative to book value, a further input option for the value of the plants has been provided for the Joint Model, namely the value implied by the Claimants' investment. No serious argument is provided in the Joint Memorandum as to why the Tribunal should adopt this approach and the Tribunal notes that, to do so, would increase the compensation to the Claimants. In the absence of any argument as to why the implied value should be adopted, the Tribunal declines to do so.

(3) The Definition of Individual Plants

88. As Dr Flores notes, the experts largely agree upon the definition of individual plants with two exceptions.[61]

89. In the Xana Portfolio, two plants, Porma and Ferreras, share the same water flow and Dr Flores considers they should be viewed as a single economic unit. He notes that these two facilities were built at the same time, in 2004, and share the same water flow from the Juan Benet reservoir and, in the technical due diligence, the production of these two facilities is modelled jointly. Further, given that the two facilities were built at the same time by the same corporate entity, there are insufficient data meaningfully to separate out their respective actual investment costs.[62]

90. In the Ondina Portfolio, two facilities, Baga and Pendis, share the same water flow and Dr Flores considers they should be viewed as a single economic unit as Baga only generates if Pendis is running at 100% load. Dr Flores states that Baga would never achieve a reasonable rate of return if analysed separately from its sister facility, even under RD 661/2007 and, therefore, from an economic point of view, it would be incorrect to compensate Baga for a shortfall in return, given that that shortfall in return would also have existed but for the disputed measures.[63]

91. Professor Spiller notes that the Tribunal requested post-tax holding IRRs for the individual plants in the Ondina and Xana portfolios and, therefore, disagrees with Dr Flores combining plants. He states that to combine Porma with Ferraras and Baga with Pendis involves combining into single entities individual plants which have different IT codes, and so are considered separate by the Spanish regulator.[64]

92. The Tribunal did request IRRs for the individual plants and, if individual plants are considered separate by the Spanish regulator, the Tribunal sees no reason to combine them for this purpose. Accordingly, the Tribunal adopts Professor Spiller's approach.

[61] Joint Memorandum, ¶ 71.
[62] Joint Memorandum, ¶ 72.
[63] Joint Memorandum, ¶ 73.
[64] Joint Memorandum, ¶ 32.

(4) The Inclusion, or Otherwise, of the Alange Plant

93. Dr Flores states that the Alange plant has performed poorly for reasons unrelated to the disputed measures and that, although it represents close to one fifth of the installed capacity of the Xana portfolio, it is only operational for two to three months per year. Dr Flores says that the failure of Alange to achieve a reasonable return stems from insufficient water flow at its location and from its owner's decision to give priority to the nearby photovoltaic facility, and not from the failure of the regulatory regime to provide a reasonable return. In fact, he says, had Alange continued to receive remuneration according to RD 661/2007, as calculated by Professor Spiller, its IRR would have been negative. Given this, Dr Flores' view is that Alange needs to be excluded from the compensation calculations, otherwise it would receive compensation for cash flows that it would not have received in the absence of the disputed measures.[65]

94. Professor Spiller disagrees with Dr Flores' exclusion of Alange. In relation to Dr Flores' first point, Professor Spiller argues that the rationale for the present assessment is that certain plants are receiving remuneration below a reasonable rate of return in the "actual" scenario. Thus, the fact that Alange was making negative cash flows in the "actual" scenario is not a reason to exclude the plant from the claim. In relation to Dr Flores' second point, Professor Spiller states that while Alange was expected to achieve a -2.60% IRR under the RD 661/2007 remuneration, it was expected to generate positive cash flows totalling EUR 2.3 million until the end of its concession. He states that this means that it was generating positive value and, therefore, from an economic perspective, contrary to Dr Flores' contention, it would have continued to operate.[66]

95. The Claimants' case in these proceedings has been that RD 661/2007 encouraged them to make their investment in small-hydro plants in Spain. If, notwithstanding RD 661/2007 a plant would not make a positive IRR and, indeed, as Dr Flores notes, was only operational for 2 or 3 months each year, the Tribunal does not consider that it should be in a better position post the disputed measures than it was under

[65] Joint Memorandum, ¶ 76.
[66] Joint Memorandum, ¶ 38.

RD 661/2007. Accordingly, the Tribunal agrees with Dr Flores that Alange should be excluded from the compensation calculations.

(5) Discount Rates

96. Professor Spiller says that Dr Flores, rather than following the Tribunal's instruction and adopting a WACC lower than the PTRRR by 1% to discount future cash flows, uses instead the same rate as the PTRRR (7%). Professor Spiller asserts that this negates the *RREEF v Spain* tribunal's dictum that investors "had legitimate expectations that the return on their investment would be above the mere level of the WACC."[67] Furthermore, Professor Spiller argues, Dr Flores' assumption goes directly against the Tribunal's instruction that the PTRRR and the discount rate or WACC have to differ by 1%, and not have the same value.[68]

97. Dr Flores does not engage in the debate over discount rates having acknowledged that his approach is different to that of Professor Spiller.[69]

98. Accordingly, for the reasons stated by Professor Spiller, the Tribunal adopts his approach, namely that the discount rate should be 1% below the PTRRR. However, the Tribunal has found that the PTRRR is 7% and, therefore, a discount rate lower than 7% ought, therefore, to be applied. Again, however, the Tribunal is provided with only two input options for the Joint Model. Having said that, given the Tribunal's findings on all the other matters in dispute between the experts, the Tribunal notes that the compensation calculated by the Joint Model does not vary regardless of which input is adopted.

(6) Whether PTRRR Should be Capped at the RD 661/2007 Level

99. As noted above,[70] Professor Spiller points out that the IRR expected to be obtained by some of plants under RD 661/2007 might be lower than the PTRRR, and, in consequence, a mechanical application of the PTRRR for such plants could produce returns higher than those they would have received under RD 661/2007. For this reason,

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[67] *RREEF v Spain* Decision on Responsibility, ¶ 587.
[68] Joint Memorandum, ¶ 17.
[69] Joint Memorandum, ¶ 5(b).
[70] ¶¶ 31-33.

Professor Spiller includes an alternative computation that caps for each plant the reasonable post-tax return at either the PTRRR or the IRR that such plant would have received from the continuation of the RD 661/2007 regulations, whichever is lower.[71]

100. Dr Flores states that:

> I note that my conclusions are in line with the Tribunal's observation that "it seems more than likely that some compensation is due to the Claimants in respect of some of the plants in the Xana portfolio, even if none is due in respect of Ondina. It is, of course, possible that a few Ondina plants may be below the properly calculated reasonable rate of return and compensation may be payable in respect of those individual plants also…" My calculations show that several of the plants in the Xana portfolio and two of the plants in the Ondina portfolio do not reach the PTRRR.[72]

101. However, Dr Flores omits the commencement of, and conclusion of, that sentence from the Decision. What the Tribunal actually said was:

> If the disaggregation performed by Compass Lexecon is correct, it seems more than likely that some compensation is due to the Claimants in respect of some of the plants in the Xana portfolio, even if none is due in respect of Ondina. It is, of course, possible that a few Ondina plants may be below the properly calculated reasonable rate of return and compensation may be payable in respect of those individual plants also, depending on the validity of the criticisms made of Econ One's approach to calculating the operational IRRs of the individual plants.[73]

102. As can be seen, therefore, that statement made by the Tribunal referred to a disaggregation made by the Claimants' expert of post-tax exit IRRs calculated by the Respondent's expert. No equivalent calculation had been conducted by the Claimants' expert at the time and, in consequence, the IRRs calculated by the Respondent's expert were dependant on the values of the plants, as calculated by the Respondent's expert. As stated above, the Tribunal has found these values to be unreliable.

[71] Joint Memorandum, ¶ 19.

[72] Joint Memorandum, ¶ 57 (internal footnote omitted).

[73] Decision, ¶ 760.

103. The main source of difference between Professor Spiller's calculation of IRRs and the IRRs calculated by Dr Flores is the value of the individual plants as of 2013. Dr Flores accepts this is correct.[74]

104. The reason Dr Flores seeks to make the point as to the Tribunal's original expectations is that he considers the cap to be what he describes as an artificial partial correction to Professor Spiller's fundamentally flawed approach.[75]

105. However, the Tribunal has already found that, of the two approaches to establishing the value of the plants as at June 2013, the approach adopted by Professor Spiller is more reliable than that adopted by Dr Flores. In consequence, whilst the approach to valuation by Professor Spiller may lead to over-valuation of some plants, the cap proposed by him ensures that no plants would be granted returns higher than those which they were receiving under RD 661/2007. Dr Flores accepts that this is the effect of the cap.[76]

106. Accordingly, the Tribunal is comforted by the fact that, even if Professor Spiller's approach to valuation is not entirely correct, application of the cap ensures that the Claimants are no better off than they were under RD 661/2007. The Tribunal, thus, considers the cap should be applied.

(7) Whether a Further Calculation is Needed to Account for the Impact on the Claimants' Equity and Debt Investments in the portfolios

107. Dr Flores considers that calculating compensation at the plant level is consistent with the Decision, and so no further calculations are required. He notes that Professor Spiller proposes that further calculations are needed to take into account the equity and debt held by the Claimants but states that the problem with his proposal is that his calculation of debt is entirely independent of the parameters in dispute in the Joint Memorandum. For example, he says, while the compensation to equity depends on the PTRRR the Tribunal will ultimately decide to be appropriate (7% or 7.97%), the value of debt is independent of that decision. Thus, had the Claimants characterised more of their investment as debt instead of as equity at some point in the past (perhaps for tax-related

[74] Joint Memorandum, ¶ 59.
[75] Joint Memorandum, ¶ 59.
[76] Joint Memorandum, ¶ 58.

considerations), those cash flows would be insulated from loss and the Claimants would now receive more compensation. That would not make sense from an economic perspective, since the economic investment would be the same.[77]

108. Professor Spiller says that the Claimants hold equity and debt investments in the portfolio companies that hold the plants and, in order to compute the compensation due to the Claimants, one must take into account the impact of the disputed measures on the company's financial debt.[78]

109. Professor Spiller explains that, as a result of the disputed measures, the Claimants' operating companies restructured their debts, which meant that the debt holders absorbed part of the impact of the disputed measures on the plants' cash flows. Professor Spiller argues that if one were to assess compensation to the Claimants exclusively by focusing on the economic impact on the plants (i.e., without focusing on damages to the Claimants), one would not be accounting for mitigation to those plant-level damages that was achieved through the debt restructuring in the "actual" scenario. In order to account for such mitigation, Professor Spiller computes the compensation due to the Claimants as the sum of the impact of the disputed measures on their equity and debt investments.[79]

110. Professor Spiller has calculated the economic impact of the disputed measures on the plants at EUR 88,556,000 as of 1 June 2013 when including a cap on "but-for" IRRs based on remuneration under RD 661/2007; and EUR 160,597,000 without this cap. Professor Spiller maintains, however, that compensation should be computed in relation to the Claimants' equity and debt investments as, to do otherwise, the calculation of the impact of the disputed measures on the plants would not account for damages mitigation achieved through the reduction in the value of debt (through restructuring) in the "actual" scenario, and hence would overstate damages to the Claimants.[80]

111. Adopting Professor Spiller's approach results in total damages to the Claimants' equity investments at EUR 37,057,000 as of 1 June 2013, and damages to the Claimants' debt

[77] Joint Memorandum, ¶ 77.
[78] Joint Memorandum, ¶ 41.
[79] Joint Memorandum, ¶ 42.
[80] Joint Memorandum, ¶ 44.

investment at EUR 4,362,000 as of 1 June 2013. Thus, adopting this approach reduces the compensation due to the Claimants from EUR 88,556,000 to EUR 41,419,000 assuming Professor Spiller's approach to all the matters at issue in the Joint Memorandum are accepted.[81] Professor Spiller concludes:

> The equity holders were thus able to mitigate the impact of the measures by EUR 51.5 million, essentially by getting lenders to absorb this portion of damages through the restructuring of the portfolio companies' financial debt. As Claimants also hold a debt investment, they absorbed a part of the burden that was shifted to lenders. In spite of suffering damages to its debt holdings of EUR 4.4 million, Claimants' net mitigation remains significant, at EUR 47.1 million. In other words, this net mitigation has to be deducted from the overall damages to the plants to accurately reflect the actual losses suffered by the Claimants as a result of the Measures.[82]

112. The Tribunal agrees with Dr Flores that Professor Spiller's calculation of debt is entirely independent of the parameters in dispute in the Joint Memorandum and that, whilst the compensation to equity depends on the PTRRR, the value of debt is independent of that decision. Nevertheless, in order to mitigate the losses the Claimants considered were caused as a result of the disputed measures, the Claimants did restructure their debts, and significant mitigation was clearly achieved.

113. The concept of mitigation requires a claimant to take steps to minimise its loss and to avoid taking unreasonable steps that increase its loss. An injured party cannot recover damages for any loss (whether caused by a breach of treaty, contract or duty) which could have been avoided by taking reasonable steps. The duty to mitigate damages is recognised as a general principle of law and as the tribunal in *Middle-East Cement Shipping and Handling Co v Egypt* stated:

> … this duty can be considered to be part of the General Principles of Law which, in turn, are part of the rules of international law which are applicable in this dispute according to Art. 42 of the ICSID Convention.[83]

[81] Which, of course, they are not. However, taking into account those areas where the Tribunal has accepted the arguments of Dr Flores, it still results in a significant reduction in the compensation due to the Claimants.

[82] Joint Memorandum, ¶ 46 (internal footnotes omitted) and Table 2.

[83] *Middle East Cement Shipping and Handling Co v Arab Republic of Egypt*, ICSID Case No. ARB/99/6, Award, 12 April 2002 (CL-0082), p 40, ¶ 167.

114. It is clear from Professor Spiller's calculations, which are not questioned by Dr Flores, that the debt restructuring has mitigated the losses to the Claimants. Whether further mitigation steps could have been taken is not clear to the Tribunal and, certainly, the Respondent has not argued that other steps could have been taken. Equally, Dr Flores has not sought to provide any calculations to show that greater mitigation could have been achieved by restructuring the Claimants' debt and equity in some other way.

115. In consequence, the Tribunal accepts that mitigation has been achieved by the Claimants and, in the absence of any argument to the contrary, that mitigation is the best that could reasonably have been achieved.

116. Dr Flores argues that the debt damages of EUR 4,362,000 ought not to be included in the compensation to the Claimants because the debt is unrelated to any investment to build or refurbish plants,[84] because if the Claimants' predecessors had characterised the entire equity investment as debt in 2010 before they sold the Ondina portfolio to the Claimants, then those cash flows would be insulated from any change in regulation, regardless of whether such a change was determined to be a breach by the Tribunal,[85] and, finally, because:

> Prof. Spiller calculates that Claimants would lend funds to their own plants in some years (as debt, not as equity contributions). Those amounts would be repaid later (to themselves), with interest. This would have occurred whether or not the Measures were implemented, as demonstrated by the fact that Prof. Spiller's but for cash flows are insufficient to "repay" this debt. This shows that Prof. Spiller's distinction between debt and equity is artificial.[86]

117. The Tribunal would consider all of these arguments as valid if the debt damages were not related to the mitigation measures. Effectively, however, these debt damages of EUR 4,362,000 represent the "costs" incurred by the Claimants in mitigating their loss and reducing the overall losses from EUR 88,556,000 to EUR 41,419,000. It is well established that, as part of the duty to mitigate, costs incurred in mitigating are recoverable so long as they are reasonably incurred and do not exceed the result of the mitigation itself. The debt damages appear to the Tribunal to have been reasonably

[84] Joint Memorandum, fn 140.

[85] Joint Memorandum, fn 142.

[86] Joint Memorandum, fn 143.

incurred, given the huge reduction achieved in the losses to the Claimants overall and, clearly, do not come close to exceeding the result of that mitigation.

118. In consequence, the Tribunal does not consider the debt damages should be excluded from the compensation due to the Claimants.

V. APPLICATION OF THE JOINT MODEL

119. The Joint Model is designed to calculate the compensation due to the Claimants once the Tribunal has decided what the inputs to the Joint Model should be.

120. There are seven input boxes or "General Switches" as they are called in the Joint Model, namely:

- The PTRRR;
- The value of the plants as of June 2013;
- The definition of individual plants;
- Whether PTRRR should be capped at the RD 661/2007 level;
- The discount rates;
- The inclusion, or otherwise, of the Alange plant; and
- Whether a further calculation is needed to account for the impact on the Claimants' equity and debt investments in the portfolios.

121. Each of the General Switches gives binary choice, "CLEX" or "QE", CLEX representing Compass Lexecon (i.e., Professor Spiller's arguments) and QE representing Quadrant Economics (i.e., Dr Flores' arguments). For the switch for the value of the plants, if the CLEX option is chosen, there is the ability to choose whether it should be book value or value implied by the Claimants' investment in the plants.

122. As is apparent from the analysis of the Tribunal above the Tribunal has accepted Professor Spiller's arguments in respect of the value of the plants as of June 2013, the definition of individual plants, whether PTRRR should be capped at the RD 661/2007

level, the discount rates and whether a further calculation is needed to account for the impact on the Claimants' equity and debt investments in the portfolios. The Tribunal has accepted Dr Flores' arguments as to the exclusion of the Alange plant and, although it accepts Professor Spiller's approach to the calculation of the PTRRR it adopts Dr Flores' figure of 7% as being the most likely to be correct, whilst disagreeing with the method of calculation adopted by Dr Flores.

123. Accordingly, once those findings are inputted, the calculation of the compensation due to the Claimants made by the Joint Model is EUR 30,875,000.

VI. DECISION OF THE TRIBUNAL ON QUANTUM

124. For the reasons set out above, the Tribunal orders the Respondent to pay to the Claimants the sum of EUR 30,875,000 in compensation for the losses incurred by the Claimants by reason of the Respondent's breach of ECT Article 10(1).

VII. INTEREST

(1) The Claimants' Position

125. The Claimants request an award of interest as "an integral component of full compensation under international law." They assert that it is not an addition to reparation but a part of it by which damages are repaired in full.[87]

126. They rely on Article 38 of the ILC Draft Articles on Responsibility of States for Internationally Wrongful Acts, which provides:

> 1. Interest on any principal sum due under this chapter shall be payable when necessary in order to ensure full reparation. The interest rate and mode of calculation shall be set so as to achieve that result.
>
> 2. Interest runs from the date when the principal sum should have been paid until the date the obligation to pay is fulfilled.

127. According to the Claimants, in order to allow for full compensation of the damages caused by Spain's wrongful measures, the cost of equity in Spain at the date of the

[87] Cl. Mem., ¶¶ 343-346; Cl. Reply, ¶ 350.

alleged expropriation, i.e. 8 July 2015, is the appropriate rate for pre-award interest.[88] It comprises the market risk and the country risk premia and the systematic risk of the company's equity (the Beta), and represents – in the analysis of the Claimants' quantum experts – "the minimum rate that a rational investor would have demanded to willingly postpone collection of their dividends, which is what Claimants have been forced to do since the introduction of the Measures".[89] The application of a risk-free and short-term interest rate would under-compensate the Claimants since it fails to reflect the fact that the measures reduced the operating companies' profits and thus the dividends that the Claimants would have been able to collect.[90]

128. The Claimants rely – among others – on *Vivendi v Argentina*, where the tribunal found an interest rate based on the claimant's cost of capital "a reasonable proxy for the return the Claimants could otherwise have earned on the amounts invested and lost in the … concession".[91]

129. The Claimants base their calculation on the quantum experts' finding as to the cost of equity on 8 July 2015 of 6.46%. They argue that this rate should be applied to the calculation of pre-award interest, running from the first wrongful measures on 1 January 2013 to the date of the final award.

130. With respect to post-award interest, the Claimants submit that its "function is to eliminate a State's incentive to delay full payment of the award".[92] They rely on *Gold Reserve v Venezuela*, where the tribunal found that tribunals "may also determine a different interest rate to apply to post-Award interest than that applied to pre-Award interest. This is because the purpose of post-Award interest is arguably different – damages become due as at the date of the Award, and from this time,

[88] As an alternative, the Claimants present a rate of cost of equity established at a different valuation date, i.e. the proxy date of an award. However, for the calculation of the interest rate, they rely on the rate at the date of 8 July 2015.

[89] Cl. Reply, ¶ 357 (quoting the Second Compass Lexecon Report, ¶ 162).

[90] Cl. Reply, ¶ 356.

[91] *Vivendi v Argentina*, ¶ 9.2.8.

[92] Cl. Mem., ¶ 353; Cl. Reply, ¶ 360.

Respondent is essentially in default of payment."[93] They point to other awards that have applied a higher rate for post-award than for pre-award interest.[94]

131. On that basis, the Claimants seek interest from the day of the award until its full payment at the cost of equity (6.46%) plus an additional 2%.[95]

132. Further, the Claimants request that the combined pre-award and post-award interest be compounded annually.[96] They present "compounding as an element of full reparation"[97] and rely on extended literature and awards in that sense, of which *Gold Reserve v Venezuela*, where the tribunal found that the compounding of interest "better reflects current business and economic realities and therefore the actual damage suffered by a party".[98]

(2) The Respondent's Position

133. The Respondent submits that, on the hypothesis that damages are awarded ***(a)*** the rate for pre-award and post-award interest should be identical,[99] and ***(b)*** "a 'short-term risk-free rate' should be applied, such as the 6-month or 1-year EURIBOR, consistent with economic doctrine and practice".[100]

134. The Respondent does not engage in a discussion on the issue of compounding the interest.

135. The Respondent argues, relying on the opinion expressed in the quantum expert reports,[101] that the Claimants' approach based on the cost of equity prevailing at any time after the measures is mistaken, because it builds on the erroneous assumption that they were exposed to a country risk, a market risk and a risk of securities as from 2013,

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[93] *Gold Reserve Inc. v Bolivarian Republic of Venezuela*, ICSID Case No. ARB(AF)/09/1, Award, 22 September 2014 (CL-0037) ("***Gold Reserve v Venezuela***"), ¶ 856.

[94] Cl. Reply, ¶ 361.

[95] Cl. Mem., ¶ 354; Cl. Reply, ¶ 362.

[96] Cl. Mem., ¶¶ 355-357; Cl. Reply, ¶ 362.

[97] Cl. Mem., ¶ 355.

[98] *Gold Reserve v Venezuela,* ¶ 854.

[99] Resp. Rej., ¶ 1238.

[100] Resp. Rej., ¶ 1229.

[101] First Econ One Report, Annex F, and Second Econ One Report, Annex A.

which in reality would not exist for the funds potentially granted as compensation by an award at a much later date.

136. It relies on *Vestey v Venezuela*, where the tribunal had awarded interest using the yield of the 6-months U.S. Treasury Bills with a view to avoid "to reward it [the victim] for risks which it does not bear."[102] Similarly, in *Gold Reserve v Venezuela* the tribunal had awarded pre-award interest in reference to the U.S. Treasury Bills rate and post-award interest in reference to LIBOR.[103] The Respondent quotes Mark Kantor who summarizes the arbitral practice by stating that "[a]s a practical matter, the interest rate used for the historical amount is often a 'risk-free' rate (such as the rate for US Treasuries) or a statutory rate for pre-judgment interest."[104]

137. With respect to post-award interest, the Respondent rejects the Claimants' argument that its rate should be higher in order to discourage delaying payment tactics.

138. Firstly, it agrees with *Micula v Romania,* where the tribunal did not

> see why the cost of the deprivation of money (which interest compensates) should be different before and after the Award, and neither Party has convinced it otherwise. Both are awarded to compensate a party for the deprivation of the use of its funds. The Tribunal will thus award pre- and post-award interest at the same rate.[105]

139. Secondly, it considers the increase of the rate by 2% as punitive, which is contrary to Article 36 ILC Draft Articles on Responsibility of States for Internationally Wrongful Acts. In this regard, the commentary of 2001 states that "[c]ompensation … is not concerned to punish the responsible State, nor does compensation have an expressive or exemplary character."[106]

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[102] *Vestey Group Ltd v Bolivarian Republic of Venezuela*, ICSID Case No. ARB/06/4, Award, 15 April 2016 (RL-0037), at ¶ 440.

[103] Resp. C-Mem., ¶ 1330; Resp. Rej., ¶¶ 1233-1234; referring to *Gold Reserve v Venezuela,* ¶ 855.

[104] Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence*, (Kluwer Law International, 2008) (RL-0038), p. 49.

[105] *Micula v Romania*, ¶ 1269.

[106] International Law Commission, *Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries*, 2001 (RL-0043), Art. 36, ¶ 4.

(3) The Tribunal's Analysis

140. The Tribunal considers the payment of interest as an integral component of full reparation, running from the date of the occurrence of damage to the date of full payment of the debtor's obligations, as provided for in Article 38 ILC Draft Articles on Responsibility of States for Internationally Wrongful Acts.

141. The Claimants assert that the valuation date for the accrual of damages is 1 January 2013. In its Decision on Jurisdiction, Liability and Directions on Quantum the Tribunal has found that the relevant date for the calculation of an adequate PTRRR is June 2013.[107]

142. In their Joint Memorandum of 22 May 2020, quantum experts Professor Spiller and Dr Flores have based their calculations on that date, Professor Spiller explicitly referring to 1 June 2013, and Dr Flores implicitly agreeing thereto. Since 1 June 2013 is the decisive date for the measurement of the PTRRR, the relevant date for the potential damages, compensation of damages and interest to be paid must be identical. Therefore, the Tribunal finds that the date at which the interest starts to run is 1 June 2013.

143. Although being part of reparation of damages, interest is not simply an additional element in the overall calculation of compensation, which would increase the principal sum and would duplicate calculation of damages. Therefore, it cannot be considered as compensation for potential "additional profits", determined by the cost of equity, as suggested by Professor Spiller's quantum expert opinion.[108] Rather, the payment of interest compensates the injured person for the fact that for a certain period of time the principal sum is not at its disposal, and that it is temporarily deprived of liquidity. Interest does not compensate for the loss of money but for the loss of the use of money, a "secondary element, subordinated to the principal amount of the claim".[109]

144. This rationale does not allow to distinguish between a period of deprivation of liquidity before the award and after the award. The duty to pay interest does not pursue a punitive objective. It compensates for the temporary loss of the use of the principal sum due.

[107] Decision, ¶ 762.

[108] Second Compass Lexecon Report, ¶ 162.

[109] ILC Draft Articles on Responsibility of States for Internationally Wrongful Acts, Art. 38, ¶¶ 4 and 1.

Therefore, the Tribunal agrees with the *Micula v Romania* and the *RREEF v Spain* tribunals when they rejected the idea that "the cost of the deprivation of money (which interest compensates) should be different before and after the Award"[110] and awarded pre- and post-award interest at an identical rate.

145. As to the appropriate rate, the Tribunal believes it should reflect a commercial borrowing rate which the Claimants would incur to compensate the deprivation of liquidity by borrowing money. The Respondent and its quantum expert propose a "6-month or 1-year EURIBOR, consistent with economic doctrine and practice",[111] corresponding to a short-term and risk-free rate. The Claimants object to the method but do not question the figure.[112]

146. EURIBOR is a commercial rate at which banks lend each other money. A margin must be added to take into account that the Claimants do not have access to the inter-bank rate. Given the circumstances of the case and the solidity of the Claimants' investment, the Tribunal considers a margin of 1% to be added to a one-year EURIBOR to be appropriate.

147. The Claimants claim that the interest should be compounded annually. They argue that the compounding of interest reflects economic practice and makes good missed business opportunities. The Respondent does not argue to the contrary. The Tribunal sees no reason to deny the Claimants' request.

148. For these reasons, the Tribunal orders that the Respondent shall pay interest on the principal sum outstanding under this Award (being EUR 30,875,000 at the date hereof) from 1 June 2013 until the date of payment at the rate of one-year EURIBOR plus 1%, established and compounded annually.

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[110] *Micula v Romania*, ¶ 1269; *see also RREEF Infrastructure (G.P.) Limited and RREEF Pan-European Infrastructure Two Lux S.à r.l. v Kingdom of Spain*, ICSID Case No ARB/13/30, Award, 11 December 2019, ¶ 65.

[111] Resp. Rej., ¶ 1229.

[112] Cl. Reply, ¶¶ 355-357.

VIII. COSTS

(1) The Claimants' Cost Submissions

149. In their submissions on costs, the Claimants request that the Tribunal award the Claimants the following categories of costs: ***(i)*** the Claimants' share of the fees and expenses of the Tribunal and of ICSID; ***(ii)*** reasonable costs for legal representation and assistance; ***(iii)*** costs of independent experts; and ***(iv)*** travel and other expenses of the Claimants and their fact witnesses. In addition, the Claimants also claim interest on costs.[113]

150. The Claimants have submitted the following claims for legal and other costs (excluding advances made to ICSID):

CATEGORY	AMOUNT	TOTAL
Costs for Legal Representation and Assistance		
Three Crowns LLP	– EUR 1,502,190.90 (fees up until 28 October 2019)	
	– EUR 205,962.07 (disbursements up until 28 October 2019)	
	– EUR 111,711.12 (fees from 28 October 2019 to 22 May 2020)	
	– EUR 60.24 (disbursements from 28 October 2019 to 22 May 2020)	
Cuatrecasas	– EUR 726,000 (legal fees from 26 November 2014 to 15 November 2018)	
	– EUR 58,680.98 (disbursements from 26 November 2014 to 15 November 2018)	
Gómez-Acebo & Pombo	– EUR 98,037 (legal fees as of 23 June 2020)	
	– EUR 1,604.07 (disbursements as of 23 June 2020)	
Ms Rebeca Quiroga	– EUR 24,192 (fees as of 23 June 2020)	
	– EUR 164.30 (disbursements as of 23 June 2020)	
	Subtotal	EUR 2,728,602.68

[113] Claimants' Updated Statement of Costs dated 24 June 2020 ("**Cl. Up. St. Costs**").

Costs of Expert Advice		
Compass Lexecon	– EUR 815,701.44 (as of 23 June 2020)	
KPMG	– EUR 360,993.50	
	Subtotal	EUR 1,176,694.94
Travel and Other Expenses of the Claimants and the Claimants' Fact Witnesses		
Mr Luis Quiroga	EUR 2,274.46	
Mr Luigi Pettinicchio and Mr Olivier Delpon de Vaux	EUR 1,374.11	
	Subtotal	EUR 3,648.57
	TOTAL	**EUR 3,908,946.19**

151. The Claimants also seek recovery of success fees pursuant to fee arrangements between the Claimants and Three Crowns, as follows:

> Under the fee arrangements … Claimants are also liable to pay to Three Crowns, and accordingly seek recovery of, success fees, which consists of two components:
>
> a *A success fee that is payable by Claimants upon receipt by them of a favourable final award for damages and which is calculated by reference to the total amount of damages awarded (contractually subject to a maximum of EUR 1.5 million)*. Claimants request that the Tribunal first render a further Decision on quantum to dispose of all remaining claims other than costs, so as to allow Claimants to present to the Tribunal a calculation of this success fee component, which can then be addressed in the Tribunal's final award.
>
> b *A success fee balance that is payable by Claimants upon actual collection of compensation in connection with their claims and which is calculated by reference to the actually collected amount (subject to a maximum of EUR 3,156,800)*. As for this component, Claimants request the Tribunal to grant a declaration that Spain shall be liable to pay any such success fees to Claimants up to a maximum of EUR 3,156,800 in the event of collection of the full amount of damages being sought (i.e., EUR 98,199,000), and upon

Claimants' production of proof of payment of such fees to Three Crowns.[114]

152. In addition, the Claimants seek pre-award and post-award interest on the costs incurred by them in connection with the arbitration. The Claimants submit that such interest shall be "at the same rate as applied to the other components of the compensation which they claim", should run from the date such costs were incurred and be compounded annually.[115]

(2) The Respondent's Cost Submissions

153. In its submissions on costs, the Respondent requests that the Tribunal exercise its discretion to render an award of costs in the Respondent's favour. It argues that "the case involved a number of challenging procedural and legal issues, which the Respondent addressed with professional and effective advocacy", as it can be perceived in the Tribunal's Decision which dismissed the bulk of the Claimants' claim.[116]

154. The Respondent has submitted the following claims for legal and other costs (excluding advances made to ICSID):[117]

CATEGORY	AMOUNT
Expert Reports	EUR 500,000.00
Translations	EUR 35,870.07
Editing Services	EUR 85,613.53 (updated)
Courier Services	EUR 2,127.02 (updated)
Travelling Expenses	EUR 34,247.25 (updated)
Legal fees	EUR 888,468.00 (updated)

[114] Cl. Up. St. Costs, ¶ 7 (internal footnotes omitted).
[115] Cl. Up. St. Costs, ¶ 19.
[116] Respondent's Comments on Claimants' Updated Statement of Costs dated 8 July 2020 ("**Resp. Comm. Costs**"), ¶ 3.
[117] Respondent's Updated Statement of Costs dated 24 June 2020.

TOTAL	**EUR 1,546,325.87**

155. In addition, the Respondent submits that the Claimants' request that success fees be included in the Tribunal's decision on costs is unfounded, and that the Claimants' update in Compass Lexecon's fees and expenses is excessive and abusive.[118] Accordingly, the Respondent requests that:

> **(a)** The Tribunal decides that the Kingdom of Spain should under no circumstances be ordered to bear the Claimants' costs
>
> **(b)** And subsidiarily,
>
> - the Tribunal excludes from Claimants' Statement of Costs the concepts alluded to as success fees.
>
> - And, if an update of fees and expenses of Compass Lexecon is granted, to reduce them to a more reasonable amount.[119]

(3) The Tribunal's Decision on Costs

156. Article 61(2) of the ICSID Convention provides:

> In the case of arbitration proceedings the Tribunal shall, except as the parties otherwise agree, assess the expenses incurred by the parties in connection with the proceedings, and shall decide how and by whom those expenses, the fees and expenses of the members of the Tribunal and the charges for the use of the facilities of the Centre shall be paid. Such decision shall form part of the award.

157. This provision gives the Tribunal discretion to allocate all costs of the arbitration, including attorney's fees and other costs, between the Parties as it deems appropriate.

158. The Tribunal notes that, in the present case, both Parties have presented their case efficiently, even though neither party has prevailed with respect to the entirety of their claims. First, the Claimants had requested compensation in an amount of at least EUR 132.1 million, while the Tribunal has set the amount of compensation awarded at EUR 30,875,000. Second, as to jurisdiction, the Tribunal dismissed the Respondent's first jurisdictional objection (concerning EU law issues) and upheld the Respondent's

[118] Resp. Comm. Costs., ¶ 7.

[119] Resp. Comm. Costs., ¶ 21.

second jurisdictional objection (regarding the taxation carve-out in Article 21 and the MFN clause of Article 10(7) of the ECT). As to the merits, the Claimants have prevailed partly on legitimate expectations as a breach of the fair and equitable treatment obligation contained in Article 10(1) of the ECT. However, the Tribunal dismissed the Claimants' claims on expropriation under Article 13(1) of the ECT, as well as the alleged violations of the duty to provide most constant protection and security, and non-impairment by unreasonable or discriminatory measures under Article 10(1) of the ECT.

159. Accordingly, the Tribunal considers that it is fair to order that each Party should bear its own legal costs and other expenses and that the Parties should share equally the costs of the arbitration.

160. The costs of the arbitration, including the fees and expenses of the Tribunal, ICSID's administrative fees and direct expenses, amount to (in USD):

Arbitrators' fees and expenses	
Lord Collins of Mapesbury	USD 310,272.13
Professor Rolf Knieper	USD 126,445.56
Mr Peter Rees QC	USD 114,045.45
ICSID's administrative fees	USD 190,000.00
Direct expenses	USD 152,922.60
Total	**USD 893,685.74**

161. The above costs have been paid out of the advances made by the Parties in equal parts.[120] As a result, each Party's share of the costs of arbitration amounts to USD 446,842.87.

[120] Any remaining balance will be reimbursed to the parties in proportion to the payments that they advanced to ICSID.

IX. AWARD

162. The Tribunal makes the following Award:

(1) The Respondent shall pay to the Claimants EUR 30,875,000, together with interest from 1 June 2013 until the date of payment at the rate of one-year EURIBOR plus 1%, established and compounded annually.

(2) Each Party shall bear its legal and other expenses.

(3) The fees and expenses of the members of the Tribunal and the charges for the use of the facilities of the Centre shall be borne equally between the Parties.

Rolf Knieper

Professor Rolf Knieper
Arbitrator

Date: 24 July 2020

Mr Peter Rees, QC
Arbitrator

Date:

Lord Collins of Mapesbury, LL.D., F.B.A.
President of the Tribunal

Date:

Professor Rolf Knieper
Arbitrator

Date:

Mr Peter Rees, QC
Arbitrator

Date: 24 July 2020

Lord Collins of Mapesbury, LL.D., F.B.A.
President of the Tribunal

Date:

Professor Rolf Knieper
Arbitrator

Date:

Mr Peter Rees, QC
Arbitrator

Date:

Lord Collins of Mapesbury, LL.D., F.B.A.
President of the Tribunal

Date: July 24, 2020