ARBITRATION UNDER THE RULES OF ARBITRATION OF THE UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW

GUARACACHI AMERICA, INC.

&

RURELEC PLC

Claimants

v.

PLURINATIONAL STATE OF BOLIVIA

Respondent

STATEMENT OF CLAIM

1 MARCH 2012

Freshfields Bruckhaus Deringer

601 Lexington Avenue
31st Floor
New York, NY 10022
United States of America

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I. INTRODUCTION

1. Guaracachi America, Inc. (***Guaracachi America***, or ***GAI***), a company incorporated in the United States of America, and Rurelec PLC (***Rurelec***), a company constituted under the laws in force in the United Kingdom (collectively, ***the Claimants***) submit this Statement of Claim in support of their claims against the Plurinational State of Bolivia (***Bolivia***, or the ***Government***). The present Statement of Claim is submitted pursuant to Article 20 of the 2010 Arbitration Rules of the United Nations Commission on International Trade Law (the ***UNCITRAL Rules***) and paragraph 12 of the Tribunal's Terms of Appointment and Procedural Order No. 1 dated 9 December 2011.

2. Guaracachi America and Rurelec bring these claims as US and UK investors, pursuant to the Treaty between the Government of the United States of America and the Government of the Republic of Bolivia Concerning the Encouragement and Reciprocal Protection of Investment (the ***US Treaty***)[1] and the Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the Republic of Bolivia for the Promotion and Protection of Investments (the ***UK Treaty***) (together, the ***Treaties***).[2]

3. The Claimants have commenced these proceedings to obtain adequate and effective compensation in respect of the interference by the Bolivian state with the key elements of the regulatory framework affecting Rurelec's and Guaracachi America's 50.001% shareholding in Empresa Eléctrica Guaracachi S.A. (***Guaracachi***),[3] the failure to obtain justice through the Bolivian court system in

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[1] Treaty between the Government of the United States of America and the Government of the Republic of Bolivia Concerning the Encouragement and Reciprocal Protection of Investment, signed on 17 April 1998 and entered into force on 6 June 2001, **Exhibit C-17**.

[2] Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the Republic of Bolivia for the Promotion and Protection of Investments, signed on 24 May 1988 and entered into force on 16 February 1990, **Exhibit C-1**.

[3] These measures include: (a) the alteration of the legal framework for calculation of electricity spot prices; and (b) failure to provide the Claimants with effective means to assert claims and enforce their

respect of such interference and, finally, the forced nationalization on 1 May 2010 of that shareholding.

4. The combination of these measures caused injury to the Claimants quantified at no less than US$142.3 million. In the months that followed the expropriation, not only did Bolivia fail to make any offer of compensation, it proceeded to seize further assets owned by Rurelec's subsidiary, Energía para Sistemas Aislados Energais S.A. (***Energais***), resulting in a further loss of US$661,535.

5. Before we enter into the detail, a brief summary of the simple facts in this case is appropriate. In the early 1990s, Bolivia undertook an ambitious program of reform to establish a new regulatory framework encouraging private sector participation and competition in the electricity industry. The economic crisis that Bolivia faced from 1981 until 1985 had profound consequences on the supply of electricity in Bolivia, which at the time was unreliable and inefficient, with blackouts occurring regularly. Private investment remained depressed, and the levels of investment required and know-how for Bolivia's electricity sector were beyond the financial capability of the Government.

6. As a result, between 1992 and 1994, Bolivia established laws on investment, privatization, and capitalization, which together created a framework for a supportive investment climate. It also adopted a comprehensive new legal and regulatory framework for the electricity sector. The cornerstone of that framework was Law No. 1604 of 1994 (the ***Electricity Law***). The guarantees that Bolivia provided in the Electricity Law were tailor-made to address the concerns that otherwise would have kept foreign investors away. In particular, the Electricity Law provided for the introduction of a freely competitive electricity market that promoted improvements in quality and efficiency in rendering electricity generation services; provided for tariffs that reflected economic and

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rights before the Bolivian courts with respect to a legal challenge to the way in which capacity price calculations were unilaterally altered to the Claimants' detriment.

financial supply costs; and established a regulatory, institutional and legal environment to enable the utilities to compete on an equal basis.

7. It was on this basis that Bolivia proceeded to privatize the largest electricity generator in the country, the state-owned Empresa Nacional de Electricidad (***ENDE***). Unlike traditional privatizations, in which a government sells complete ownership of a company, the "capitalization" program allowed private investors to obtain a 50 percent share and management control of important state-owned enterprises, in exchange for the contribution of a set amount of capital. As a result of capitalization, ENDE's power generation assets were unbundled and divided into three separate mixed companies, including Guaracachi, to which three of ENDE's thermal power stations were transferred.

8. In 1995, through this process, Energy Initiatives, a subsidiary of GPU Power Inc. (***GPU***), won a stake in Guaracachi with a US$47.13 million bid and established Guaracachi America for the purpose of subscribing to 50 percent of Guaracachi's shares. In formulating its bid amount, Energy Initiatives recognized not only the value of Guaracachi's fixed assets but, importantly, the future value of the business based on expectations created pursuant to the commitments and protections enshrined in the Electricity Law.

9. By 1999, under the leadership of Energy Initiatives, Guaracachi had invested US$72.7 million in Bolivia – 154.3% of the US$47.1-million it committed to investing at the time of capitalization. As a result of these investments, Guaracachi America was permitted to acquire a majority interest in Guaracachi, as provided for in the contract it entered into with the Ministry at the time of capitalization.

10. On 22 January 2006, Evo Morales became the 80th President of Bolivia. Although there had been speculation about nationalization of hydrocarbons following a referendum held under the previous administrations, there had been no suggestion that utilities or the electricity sector would be nationalized as part of

any government agenda. There was no emotional or political debate about the sovereignty of natural resources in a well functioning sector such as electricity generation. Further, the Government needed foreign investment to expand and develop the electricity sector as demand increased and it did not have the available capital nor the know-how to develop the electricity generation sector on its own. Also, unlike other sectors, maintaining an efficient electricity system figured prominently in the daily lives of ordinary Bolivians and any risk to the security of electricity supply could have adverse political consequences for the Government in power.

11. It was against this background that, in December 2005, Rurelec contracted to acquire Guaracachi America for US$41.2 million through its wholly-owned subsidiary, Birdsong Overseas Limited. The acquisition was completed on 6 January 2006. In the months following its acquisition, the Government confirmed Bolivia's commitment to the regulatory framework that was introduced with privatization in an agreement with the electricity sector which was signed in exchange for a significant subsidy by the sector to lower income consumers through what was known as the "Dignity Tariff". The commitment was clearly set out in Article 5 of that agreement:

> The Supreme Government is committed to making every effort to maintain this system of fixing prices for the activities of generation, transmission and distribution. In the eventuality that changes are made to the norms currently in force, these will be made in consultation with the companies of the sector, after first ensuring that their income allows them to ensure the sustainability and reliability of supply.[4]

12. Consistent with this commitment, Guaracachi continued its program of investment in new generation capacity, now under Rurelec's leadership, leading

[4] Agreement of the Strategic Alliance Between the Government of Bolivia and the Electricity Companies, 21 March 2006, **Exhibit C-119**, Article 5. *See also* Supreme Decree No. 28,653/2006, 21 March 2006, **Exhibit C-118**.

to the establishment of 185 MW of new high-efficiency power plant capacity to meet increased demand, at a cost of approximately US$110 million.

13. As a result of its commitment to ensuring a secure electricity supply, Rurelec enjoyed excellent relations with the various energy ministers under the administration of Evo Morales. By 2010, many of the objectives of Bolivia's electricity sector reforms were realized. In July 1995, at the time of capitalization, Guaracachi had 248.6 MW of installed capacity provided by nine old technology "Frame 5" gas turbines, five dual fuel (gas and diesel) turbines and one aero-derivative gas turbine installed in the 1970s and early 1980s. By 2010, as a consequence of investments made by Guaracachi, under the leadership of the Claimants, installed capacity had nearly doubled to 423.6 MW (excluding the 82 MW of combined cycle capacity which was nearing commissioning at the time of the expropriation), all of which was based on high efficiency and low emission technology.

14. Notwithstanding these levels of investment, Bolivia had failed to respect the commitment it had given in its Agreement with the sector. First, it had interfered with the capacity payment calculations in 2007 without proper consultation with the generators that resulted in an important decrease in such revenues. It had then failed to provide the Claimants with effective judicial means to assert claims and enforce their rights with respect to such changes. Second, in 2008, Bolivia interfered directly with the economic mechanism for the determination of electricity spot prices paid to generators in a blatant attempt to reduce the prices that would otherwise have resulted from the application of the legal framework.

15. But no one could have predicted at the time that these regulatory interferences were the first indications of a plan to nationalize the entire sector. Yet, in hindsight, that is what occurred. With over US$100 million of new investments in Guaracachi in place, President Morales selected May Day of 2010 to engineer a dramatic and dangerous situation: to nationalize, without warning, in an unnecessarily violent and shocking manner, the Claimants' participation in

Guaracachi. At about six o'clock in the morning, Bolivian military personnel wearing balaclava masks and carrying machine guns forced entry into Guaracachi's offices breaking doors and smashing windows notwithstanding that there had been instructions to the security guards not to resist entry. A banner was hung from one of the windows with the legend "NACIONALIZADO." Existing executives and officers were summoned to appear for a reading of Supreme Decree No. 0493 (the ***Nationalization Decree***) which purported to nationalize 100% of Guaracachi America's shareholding in Guaracachi and transfer these shares to the State-owned electricity company, ENDE. Members of the senior management of Guaracachi were summarily dismissed.

16. According to the terms of the Nationalization Decree, ENDE was to pay for the expropriated shareholding within 120 days, in an amount to be determined through a special valuation process. This entire process was to be conducted unilaterally by the Government, without any right of input from the Claimants. In any case, no such amount was ever determined within 120 days or thereafter, and no offer of compensation has ever been made to the Claimants. Bolivia did not even comply with the declared terms of its own Decree.

17. The Claimants do not challenge Bolivia's sovereign prerogative to expropriate for a public purpose. But Bolivia must exercise these sovereign powers in accordance with national and international law, in particular in accordance with the duty to provide full compensation for the value it has appropriated for itself, and for the substantial negative impact its unfair actions have had on the Claimants. This Bolivia has failed to do. Bolivia's flagrant violation of the Treaties and international law have caused damage quantified at US$142.9 million. The Claimants respectfully ask this Tribunal to uphold their rights under the Treaties and award compensation accordingly.

18. This Statement of Claim is accompanied by five statements by witnesses of fact: (i) Mr. Peter Earl, Chief Executive Officer of Rurelec; (ii) Mr. Jaime Aliaga, formerly General Manager of Guaracachi; (iii) Mr. Marcelo Blanco, formerly

Finance Director of Guaracachi; (iv) Mr. Juan Carlos Andrade, formerly Business Manager of Guaracachi; and (v) Mr. Jose Antonio Lanza, formerly Project and Development Manager of Guaracachi. It is also accompanied by factual exhibits C-45 to C-209 and legal exhibits CL-1 to CL-74.

19. To assist in calculating the financial impact of the interference with the applicable regulatory framework and the fair market value of its rights in Guaracachi as of the nationalization in May 2010, the Claimants have instructed Dr. Manuel A. Abdala of Compass Lexecon to produce a valuation report (the ***Compass Lexecon Report***). Dr. Abdala is a renowned economist with extensive experience of conducting valuation exercises of public utilities and is an expert and author on the electricity sector in Latin America.

20. The Statement of Claim is structured as follows. Section II describes the relevant facts: the regulatory framework that Bolivia established to attract investors to Bolivia's electricity generation sector, the capitalization of ENDE and the creation of Guaracachi, the investments made by the Claimants on the basis of Bolivia's regulatory framework, Bolivia's alteration of the essential elements of that framework, and Bolivia's nationalization of the Claimants' investments without compensation. Section III sets out the basis of the Tribunal's jurisdiction over these claims. In Section IV, we provide a concise analysis of the obligations incumbent upon Bolivia through the Treaties, and how Bolivia's actions are in breach of these obligations. Section V describes the damages suffered by the Claimants. Section VI then sets out the Claimants' prayers for relief at this stage of the proceedings.

II. FACTUAL BACKGROUND

A. THE REFORMS THAT FOLLOWED BOLIVIA'S ECONOMIC CRISIS OF 1981-1986

1. The profound impact of the 1980s economic crisis on Bolivia's energy sector

21. In the 1980s, Bolivia's economy was locked in a downward spiral of falling investment, savings, exports, consumption and GDP.[5] Between 1979 and 1986, per capita GDP fell by one-third, dropping as low as US$560, one of the lowest in Latin America at the time.[6] From August 1984 to August 1985, prices rose by 20,000 percent, and in the final months of this hyperinflation (from May – August 1985), inflation in Bolivia surged to one of the highest in world history: an annualized rate of 60,000 percent.[7] By 1985, Bolivia's foreign debt was greater than its GDP (at a ratio of 1.04), resulting in debt service payments amounting to 56 percent of Bolivia's total exports.[8] In the joint opinion of the UNDP and the World Bank, Bolivia would be facing a critical balance of payments disequilibrium that would paralyze the country and threaten any future growth prospects.[9]

22. It was against this background that, in 1985, the Bolivian Government – with the assistance of various international multilateral agencies and institutions – laid the foundations for economic growth by formulating and instituting a structural adjustment program. The program of structural adjustment eliminated domestic price controls, reduced tariffs, floated the currency, provided incentives for

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[5] Joint UNDP/World Bank Energy Sector Management Assistance Programme, "Basis for Formulation of a Bolivian National Energy Plan," Report No. 9723, November 1987, **Exhibit C-48**, p. 1.

[6] *Id.*

[7] J. Sachs, "The Bolivian Hyperinflation and Stabilization," AEA Papers and Proceedings, May 1987, **Exhibit C-47**, p. 1.

[8] *Id.*

[9] Joint UNDP/World Bank Energy Sector Management Assistance Programme, "Bolivia: Issues and Options in the Energy Sector," Report No. 4213-BO, April 1983, **Exhibit C-46**, p. 1; *see also* Witness Statement of Juan Carlos Andrade, 29 February 2012 (***Andrade WS***), ¶¶ 20-21.

private sector growth, privatized state-owned enterprises, and decreased the extent of economic regulation. In the words of Bolivia's Vice-Ministry of Energy and Hydrocarbons:

> In 1985, Bolivia launched a new economic policy; its priority was to consolidate and preserve economic stability and to overcome the social and economic crisis the country was undergoing. Through the implementation of a program of structural adjustment the economy began to expand.[10]

23. By 1991, after six years of its structural adjustment program, Bolivia's economy began to grow significantly. During this period, funds from international institutions started flowing again, including to Bolivia's energy sector. According to the World Bank, however, these credits funded only the "most pressing needs of the sector," and were insufficient to ensure the further rehabilitation of existing facilities and necessary institutional changes.[11] Since the energy sector in Bolivia historically accounted for up to 50 percent of the country's exports and absorbed 40 percent of public investment, its efficient operation was "critical for sustaining the economic stabilization program."[12]

24. Absent a significant infusion of funds, the continuity of normal electricity service in Bolivia was in danger. There were several reasons for this. First, the agencies that had previously financed expansion projects, such as the International Development Agency and other international organizations, ceased doing so.[13] Although Bolivia's energy sector had been built on the financial support of multilateral financing for its first 25 years, the external conditions in which the sector was developing had radically changed. Multilateral financing was now

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[10] Brochure of the Vice-Ministry of Energy and Hydrocarbons, 1998, **Exhibit C-16**, p. 6.

[11] The World Bank, "Implementation Completion Report – Bolivia: Power Rehabilitation Project (Credit 1818-BO)," Report No. 15703, 7 June 1996, **Exhibit C-64**; *see also* Andrade WS, ¶¶ 23-26.

[12] Joint UNDP/World Bank Energy Sector Management Assistance Programme, "ESMAP Country Paper: Bolivia," Report No. 10498, December 1991, **Exhibit C-50**, at v.

[13] ESMAP, World Bank and the Bolivian Ministry of Energy and Hydrocarbons, "Primer Seminario sobre Reformas en el Sector Eléctrico Boliviano," Report No. 48268, 1 May 1993, **Exhibit C-52**, p. 51.

limited due to the lack of financial resources on a global scale. Meanwhile, the Government had other pressing social responsibilities on which to focus its own limited resources.[14]

25. Second, the provisions of Bolivia's National Electricity Code, which provided for a nine percent rate of return on investments, were not applied during the economic crisis which resulted in a freeze on investment. Finally, the technical capability of Dirección Nacional de Electricidad, the regulator of the electricity sector, was limited because its budget was reduced and salaries were too low to attract and retain qualified employees.[15]

26. All of these circumstances left Bolivia's electricity generation sector and its state-owned electricity generator, ENDE, in a very strained financial position. The levels of investment required for Bolivia's electricity sector were beyond the capability of both ENDE and the Government, both in terms of finances and technical expertise. Reform of Bolivia's electricity industry – a cornerstone of the energy sector – thus had to be undertaken with the financial assistance and technical know-how of foreign investors.

2. The need for private foreign investment in Bolivia's electricity industry

27. In order to attract private capital, Bolivia undertook an ambitious program of reform to establish a new regulatory framework encouraging private sector participation and competition in the electricity industry. To this end, Bolivia promulgated laws on investment, privatization, and capitalization, which together created a framework for a supportive investment climate. First, in September 1990, Bolivia enacted a law on investments, Law No. 1182 (the ***Investment Law***), to "stimulate" and "guarantee" domestic and foreign investments in Bolivia.[16]

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[14] *Id.*; Andrade WS, ¶¶ 24-26.

[15] Andrade WS, ¶¶ 24-26.

[16] Law No. 1182, 17 September 1990, published in the *Gaceta Oficial* No. 1662 on 17 September 1990, **Exhibit C-2**, Article 1.

The Investment Law provided that these guarantees would be further reinforced by bilateral and multinational investment treaties such as the Treaties.[17]

28. In 1992, Bolivia enacted Law No. 1330 (the ***Privatization Law***)[18] in an effort to privatize small public enterprises operating in competitive markets. The objectives were to reduce the public sector deficit, transfer productive activities to the private sector, and direct the proceeds of privatization to other Government priorities.

29. In 1994, the Government enacted Law No. 1544 (the ***Capitalization Law***),[19] authorizing the acquisition of shares in the most important state-controlled entities by the private sector through international public bidding processes.[20] Unlike traditional privatizations, however, in which a government sells full ownership of a company, the "capitalization" program envisaged in the Capitalization Law allowed private investors to obtain a 50 percent share and management control of important state-owned enterprises, in exchange for the contribution of a fixed amount of capital. The remaining 50 percent of equity was then to be held by a public fund, with the resulting income used to provide a guaranteed pension for all Bolivians. The public entities included in this program included ENTEL (telecommunications), YPFB (integrated hydrocarbons), ENDE (power generation and transmission), ENAF (mineral processing), LAB (airlines), and ENFE (railways).[21]

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17 *Id.*, Article 7.

18 Law No. 1330, 24 April 1992, published in the *Gaceta Oficial* No. 1735 on 5 May 1992, **Exhibit C-3**.

19 Law No. 1544, 21 March 1994, published in the *Gaceta Oficial* No. 1824 on 22 March 1994, **Exhibit C-4**.

20 Witness Statement of Peter Earl, 29 February 2012 (***Earl WS***), ¶ 22-26.

21 UNDP, "Final Report of Peter Earl – Bolivia 1994: The Capitalization of ENDE and Electricity Sector Reform in Bolivia," including Government of Bolivia advertisement entitled "Capitalization of Public Enterprises in Bolivia," 5 December 1994, **Exhibit C-55**, Appendix A; The World Bank, "Memorandum and Recommendation of the President of the International Development Association to the Executive Directors on a Proposed Credit in an Amount Equivalent to SDR 3.5 Million to the Republic of Bolivia for Power Sector Reform Technical Assistance Project," Report No. T-6662-BO, 3 November 1995, **Exhibit C-62**, at Annex 4. *See also* Andrade WS, ¶ 27.

30. The goal of the framework was to solicit foreign investment and technical assistance in support of the country's drive toward sustained economic development. It was understood that "[t]he opening of the economy and market deregulation established a set of transparent rules and regulations" that would "guarantee the future development of the country with the private sector at the helm of its economy."[22]

31. In the years that followed, as contemplated by the Investment Law, Bolivia undertook an ambitious program of bilateral investment treaty negotiation and ratification.[23] This was done to assure foreign investors that any investments that they made in Bolivia would be treated fairly and equitably; be guaranteed full protection and legal security; not be expropriated without prompt, adequate and effective compensation; and be protected by the right to arbitrate against Bolivia before a neutral forum, should Bolivia breach one of these undertakings.

32. Bolivia understood that it was competing with other developing nations for foreign capital and that investment treaty protection would serve as an important incentive by establishing what it referred to as "a more secure investment environment for potential investors".[24]

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[22] Brochure of the Vice-Ministry of Energy and Hydrocarbons, 1998, **Exhibit C-16**, p. 6.

[23] Bolivia has entered into a broad network of bilateral investment treaties, including treaties entered into with Argentina, Austria, Belgium and Luxembourg, Chile, China, Cuba, Denmark, Ecuador, France, Germany, Italy, the Republic of Korea, the Netherlands, Peru, Romania, Sweden and Switzerland: List of Bilateral Investment Treaties concluded by Bolivia, *United Nations Conference on Trade and Development*, 1 June 2008, **Exhibit C-33**.

[24] Brochure of the Vice-Ministry of Energy and Hydrocarbons, 1998, **Exhibit C-16**, p. 7. *See also* Earl WS, ¶¶ 16-17.

B. The Guarantees That Bolivia Provided To Investors In The Regulatory Framework Applicable to Electricity Generation

1. The stable and predictable regulatory framework promulgated for the electricity generation sector

33. Given Bolivia's past record of financial instability and economic downturns, the only means for Bolivia to attract foreign investment into the privatization of ENDE after the economic crisis and hyperinflation of the 1980s was to establish a new, stable and predictable regulatory framework to govern the provision of the electricity generation sector.

34. Since the elaboration of effective electricity industry reform was complex and resource-intensive, Bolivia required international assistance, both in terms of funding and expertise. Bolivia relied on international funding and made extensive use of both internationally-recruited and domestic advisors in the preparation and implementation of its reform program.[25] These consultants and advisors included the World Bank, the UNDP, the International Development Agency and the Inter-American Development Bank.

35. The World Bank had in fact been studying Bolivia's electricity sector for some time as the Government previously sought assistance in formulating appropriate strategies in the context of the overall Bolivian economy.[26] As a result, the institutional problems plaguing Bolivia's electricity sector were well understood by the World Bank's Energy Sector Management Assistance Programme (***ESMAP***) when it reached the following conclusions in 1993:

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[25] The World Bank, "Memorandum and Recommendation of the President of the International Development Association to the Executive Directors on a Proposed Credit in an Amount Equivalent to SDR 3.5 Million to the Republic of Bolivia for Power Sector Reform Technical Assistance Project," Report No. T-6662-BO, 3 November 1995, **Exhibit C-62**, p. 1. *See also* Earl WS, ¶¶ 24-28.

[26] Joint UNDP/World Bank Energy Sector Management Assistance Programme, "Bolivia: Issues and Options in the Energy Sector," Report No. 4213-BO, April 1983, **Exhibit C-46**; Joint UNDP/World Bank Energy Sector Management Assistance Programme, "Basis for Formulation of a Bolivian National Energy Plan," Report No. 9723, November 1987, **Exhibit C-48**.

> ***Pricing distortions.*** The tariff structure and level do not permit cost recovery, do not reflect the costs of supply neither regionally, nor between final consumers or between system's peak and off-peak times.[27]
>
> ***Regulation.*** The regulatory system is frail as well as the legal provisions that support it. This is further aggravated by a weak judiciary system. This results in almost no control by the regulatory institutions and the central government over the industry, and the electric utilities. DINE, for example, is inoperative in substantive matters because of external dependence on budget and technical support. The regulatory system is based on narrowly-defined rate of return principles which dull incentives for efficient behaviour and partly explains price distortions.[28]
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> ***Investment Requirements and Structural Barriers to Entry.*** Future expansion plans are substantial (over $340 million of investment in generation is anticipated before the end of the 1990's) and are likely to be carried out by COBEE or ENDE. Given the current industry structure and electricity prices, there is little prospect of significant additional private sector investment by independent generators. There is a lack of incentives to attract private investment to create a competitive environment in power generation (for example, the existing vertical integration of the sector, cost plus principles for tariffs setting, and non-regulated access to bulk power transportation, are elements fundamental to regional monopolies).[29]

36. In order to engage international assistance, Bolivia was required to provide the international community with "a credible commitment that it was going to carry [out] these market based reforms."[30] Bolivia did just that in a Sector Policy Letter that set out the sector objectives, the institutional guidelines and the regulatory principles that would guide its reform efforts.[31] In particular, Bolivia's Sector Policy Letter provided that tariffs would "reflect the economic and financial

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[27] Joint UNDP/World Bank Energy Sector Management Assistance Programme, "Bolivia: Restructuring and Capitalization of the Electricity Supply Industry – An Outline for Change," Report No. 21520, 12 September 1995, **Exhibit C-61**, p. 17.

[28] *Id.*

[29] *Id.* at 17-18.

[30] *Id.* at 33.

[31] *Id.*

supply costs" and that it would establish a regulatory, institutional and legal environment to enable the utilities to compete on an equal basis.[32] It was on this basis that World Bank/ESMAP agreed to assist Bolivia "in the establishment of a new regulatory framework to encourage private sector participation and competition in the power subsector; encourage efficiency and entrepreneurial development of the power utilities, while broadening the service coverage; and help ensure a reliable supply of energy at a competitive price that reflects economic cost."[33]

37. The guarantees that Bolivia provided in the regulatory framework governing the electricity generation sector that it promulgated in 1994 were tailor-made to address the concerns identified by ESMAP that otherwise would have kept investors away.

38. The principal legal instrument on which this framework was founded was Law No. 1604 of 1994, the Electricity Law.[34] This law set out the basic framework for the provision of electricity service and created an autonomous entity (the Superintendencia de Electricidad (***SSDE***)) in charge of enforcing the Electricity Law and managing all regulatory matters concerning the electricity sector.[35] This framework was later completed with Bolivia's introduction of Supreme Decrees No. 26,093 and 26,094 which addressed the operation of the electricity market and the setting of prices and tariffs.[36]

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[32] *Id.* at 34.

[33] Joint UNDP/World Bank Energy Sector Management Assistance Programme, "ESMAP Country Paper: Bolivia," Report No. 10498, December 1991, **Exhibit C-50**, pp. 14-15.

[34] Law No. 1604, 21 December 1994, published in the *Gaceta Oficial* No. 1862 on 21 December 1994, **Exhibit C-5**.

[35] *Id.*

[36] Supreme Decree No. 26,903/2001, 2 March 2001, **Exhibit C-85**; Supreme Decree No. 26,094/2001, **Exhibit C-86**, 2 March 2001.

2. The key guarantees of the regulatory framework

39. The regulatory framework included a series of firm commitments which ultimately proved successful in attracting foreign investors and their capital into Guaracachi, both at the time of capitalization and subsequently.

40. These commitments were built upon the principle of economic equilibrium. This principle was embodied in the Electricity Law, which provided that the two sources of payments for Guaracachi – capacity and spot prices – would provide the company (if it operated prudently and effectively) with sufficient revenue to cover all reasonable costs, including the cost of capital, and to make a reasonable rate of return similar to that of activities of comparable risk.

41. In this regard, the Electricity Law provided for the introduction of a freely competitive electricity market.[37] In particular, Bolivia's new legal framework: (a) ensured the correct and optimum assignment and utilization of resources for the supply of electricity at a minimum cost; (b) promoted the addition of technology and modern management systems to improve quality and efficiency in rendering the services; (c) provided for the setting of tariffs that reflected economic and financial supply costs; and (d) established a regulatory, institutional and legal environment to enable the utilities to compete on an equal basis.[38]

42. The guarantees set forth in the Electricity Law were consistent with Bolivia's commitments in its Sector Policy Letter, as explained above, to: (a) ensure that the interconnected system would be operated at the minimum level of cost following appropriate reliability and environmental standards; (b) promote – through competition and private sector participation – an efficient and reliable electricity supply and the efficient use of electricity; (c) open the sector to private initiative

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[37] Law No. 1604, 21 December 1994, published in the *Gaceta Oficial* No. 1862 on 21 December 1994, **Exhibit C-5**. Articles 45 through 55 of the Electricity Law regulated electricity prices and tariffs. *See generally* Andrade WS, ¶¶ 32-33; Earl WS, ¶¶ 16.

[38] Law No. 1604, 21 December 1994, published in the *Gaceta Oficial* No. 1862 on 21 December 1994, **Exhibit C-5**, Article 3; Earl WS, ¶ 17.

and strengthen market competition, open access to networks, improve efficiency, and attract fresh capital for its development; (d) set tariffs that reflect operational and financial costs, while adopting an explicit and direct system of subsidies for basic supplies of electricity to target low income households, and for the expansion of the service; (e) establish a regulatory, institutional and legal environment to enable the utilities to compete on equal basis; and (f) ensure that these policy directives would be followed through the creation of an effective, transparent and independent regulatory framework that clearly states the rights and responsibilities of the different sector players.[39]

3. The sources of remuneration for electricity generators

43. As a result of the enactment of the Electricity Law and its regulations, electricity generators could earn revenues through two main sources: spot energy sales and capacity payments.[40] Although generation companies in Bolivia could technically also sell their production either through term contracts, due to the price volatility in the electricity sector, there are no such sales in practice in Bolivia. As a result, nearly all energy purchases are made in the spot market.

a. Energy Sales in the Spot Market

44. Revenues from energy sales relate to the sale of electricity generated at spot prices. In accordance with the Electricity Law, the price paid to generators for power dispatched in the spot market was to be uniform, and determined by the market forces of supply and demand. This uniform price was determined by the system's marginal cost of power generation – that is, the variable cost of the least efficient plant running to meet demand at any given time. All generators received

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[39] Joint UNDP/World Bank Energy Sector Management Assistance Programme, "Bolivia: Restructuring and Capitalization of the Electricity Supply Industry – An Outline for Change," Report No. 21520, **Exhibit C-61**, pp. 33-34.

[40] Supreme Decree No. 26,093/2001, 2 March 2001, **Exhibit C-85**.

that uniform price, and were thus able to make a margin, equal to the difference between their own variable cost and the variable cost of the least efficient plant.[41]

45. In practice, the spot price was established through a mechanism based on periodic variable cost declarations. In order for it to set prices, each generation company reports its gas and operating costs to the *Comité Nacional de Despacho de Carga* (***CNDC***), the Bolivian wholesale electricity market administrator, in February and August each year. The CNDC then called upon generators to dispatch electricity in the spot market in an ascending order of declared variable costs, until demand was fully met. This meant that generators with lower declared variable costs were called upon to dispatch into the market before those with higher variable costs. All generators called upon to dispatch were then remunerated at a uniform price, equal to the variable cost declared by the last unit dispatched (the "marginal unit").[42] This system of price-setting encourages innovation and establishes incentives to invest in new generation technology.[43]

b. Capacity Payments

46. In addition to receiving revenues from spot sales, generators receive compensation for available power generation capacity. These capacity payments are paid regardless of whether a generation facility is actually called upon to dispatch into the market (a circumstance which will depend on demand levels and the relative efficiency of the plant in question).[44] Capacity payments are an important part of a generation company's revenues and provide a consistent source of income that allows for investment recovery and incentivizes expansion. It also ensures that generators are incentivized to maintain certain equipment

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[41] Law No. 1544/1994, 21 March 1994, **Exhibit C-5**, Articles 45-55; Supreme Decree No. 26,093/2001, 2 March 2001, **Exhibit C-85**, Arts. 66-75; Compass Lexecon Report, ¶¶ 39-44; Earl WS, ¶¶ 18-20; Andrade WS, ¶¶ 51-54.

[42] *Id*.

[43] Andrade WS, ¶ 54.

[44] Earl WS, ¶ 21; Andrade WS, ¶¶ 46-50; *see also* Witness Statement of Marcelo Blanco, 29 February 2012 (***Blanco WS***), ¶ 18.

ready to function even though it may not be called upon often enough to cover its costs purely through the spot price mechanism.

47. The capacity payment is calculated as the amount of money required to recover investment, installation and operational costs for the most efficient new thermal turbine to provide additional power during peak hours in order to satisfy demand.[45] The CNDC compensates power plants that are available for dispatch during the peak demand periods in accordance with technical rules and regulations it applies. As a result, prices for power capacity can vary depending on world market prices for new gas turbine generating assets.[46]

C. THE CAPITALIZATION OF ENDE AND THE CREATION OF GUARACACHI

48. As explained above, the Capitalization Law provided for certain assets belonging to state-owned companies, including ENDE, to be transferred to new mixed (private and state) capital companies (*sociedades de economía mixta)* which would be injected with private capital. This was then to result in an increase of the mixed companies' capital and the issuance of new shares (amounting to a 50 percent shareholding interest) to private investors through international public bidding processes.[47]

49. Through the capitalization process, ENDE's power generation assets were unbundled and divided into three separate mixed companies. One of these was Empresa Eléctrica Guaracachi S.A.M. (which later became Guaracachi)[48] to

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[45] Law No. 1604/1994, 21 December 1994, **Exhibit C-5**, Articles 45-55; Supreme Decree No. 26,093/2001, 2 March 2001, **Exhibit C-85**, Articles 66-71; Operating Norm. No 19, "Determinación de Precio Básico de la Potencia de Punta," as framed in Resolution SSDE No. 121/2001, 2 August 2001, **Exhibit C-88**; Compass Lexecon Report, ¶¶ 34-38; Earl WS, ¶ 21; Andrade WS, ¶¶ 45-48.

[46] Earl WS, ¶ 21; Blanco WS, ¶ 18; Andrade WS, ¶¶ 45-50.

[47] Law No. 1544, 21 March 1994, published in the *Gaceta Oficial* No. 1824 on 22 March 1994, **Exhibit C-4**.

[48] *See* Supreme Decree 24047, 29 June 1995, published in the *Gaceta Oficial* No. 1886 on 30 June 1995, **Exhibit C-9**. *See also* Supreme Decree 24015, 20 May 1995, published in the *Gaceta Oficial* No. 1883 on 5 June 1995, **Exhibit C-8**, authorizing the constitution of Empresa Eléctrica Guaracachi S.A.M, as a company to be capitalized under the Capitalization Law and National Secretary of Industry

which three of ENDE's thermal power stations were transferred: Guaracachi, Aranjuez and Karachipampa, shown on the map below.[49]

Map of Bolivia showing the location of Guaracachi's power plants[50]

50. An international public bidding process for the tender of 50 percent of the increased capital in Guaracachi was launched in 1994 by the Ministry responsible for the Capitalization (*Ministerio sin Cartera Responsable de Capitalización*, the

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and Commerce Administrative Resolution No. 02-05342/95; Certificate of Registration of Empresa Eléctrica Guaracachi S.A.M to the commercial register and Administrative Resolution No. 02-05342/95, 5 July 1995, **Exhibit C-10**; Deed evidencing the conversion of the mixed capital company Empresa Eléctrica Guaracachi S.A.M into a private capital company bearing the name Empresa Eléctrica Guaracachi SA on 28 July 1995, 18 March 2003, **Exhibit C-26**.

[49] Earl WS, ¶ 28; Witness Statement of Jose Antonio Lanza, 29 February 2012 (***Lanza WS***), ¶¶ 16, 20; Witness Statement of Jaime Aliaga Machicao, 29 February 2012 (***Aliaga WS***), ¶ 14; Andrade WS, ¶ 28.

[50] *See* 2009 Annual Report of Empresa Eléctrica Guaracachi SA, 14 April 2010, **Exhibit C-36**, p. 14. The map also shows the Santa Cruz Co-Generation plant which became operational in 2009 following the transfer of two generation units from the Guaracachi plant (in order to make room for the new combined cycle plant commissioned in 2010). *See* license granted through Resolution SSDE No. 031/2009, 30 January 2009, **Exhibit C-34**; *see also* 2009 Annual Report of Empresa Eléctrica Guaracachi SA, 14 April 2010, **Exhibit C-36**, p. 10.

Ministry).[51] Advertisements announcing the bid were placed in the international press.[52]

51. Pursuant to the Bidding Rules, candidates for investment as operators of the power generation businesses were required to have five years of experience operating power generation plants and a net worth of at least US$100 million.[53] These requirements were such that only foreign companies could qualify to become operators. Through this process, the successful bidder would then receive new shares in Guaracachi.

D. THE CLAIMANTS' INVESTMENTS IN THE ELECTRICITY GENERATION SECTOR

1. Acquisition of an interest in Guaracachi by Energy Initiatives in 1995

52. A specifically created commission evaluated the bids for the stake in Guaracachi and the other mixed companies and, pursuant to Supreme Decree No. 24047 (the ***Adjudication Decree***), the Ministry selected three U.S. utility companies – Energy Initiatives, Dominion Energy, and Constellation Energy – as winners in its capitalization program tender, designed to privatize the generation assets of ENDE.[54] These three US companies were selected from the seven that had been short-listed by the Ministry earlier that month.[55] The other shortlisted bidders included a number of world-class energy companies.[56] In the words of David R.

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[51] *See* Términos de Referencia: Procedimientos de Consulta y Licitación Pública Internacional para la selección de Inversionistas y adjudicación de la suscripción de acciones a ser emitidas por: Empresa Corani S.A.M., Empresa Guaracachi S.A.M., Empresa Valle Hermoso S.A.M. y la Venta de los Proyectos: Laguna Colorada, Puerto Suárez as amended in July 1995 (Excerpts), **Exhibit C-7** (the ***Bidding Rules***), Article 1.1.

[52] *Id*., Article 1.1.1. *See also* Earl WS, ¶ 24.

[53] Bidding Rules, **Exhibit C-7**, Article 5.6.4.

[54] *See* Supreme Decree No. 24047, 29 June 1995, published in *Gaceta Oficial* No. 1886 on 30 June 1995, **Exhibit C-9**; Earl WS, ¶ 28; Lanza WS, ¶ 17.

[55] "GPU, V.A. Power and BG&E Affiliates Prequalify in Bolivia for 461 MW," *Electric Utility Week*, 5 June 1995, **Exhibit C-57**.

[56] Bidders included Energy Trade & Finance, a subsidiary of the Chilean generation company Compania Chilena de Generacion Electrica SA (Chilgener); Inverandes, a subsidiary of Empresa Nacional de Electricidad (Endesa), also of Chile; AES Corp.; and Enron Development Corp. *See* UNDP, "Final

Evert, a spokesman for the Ministry at the time, which oversaw the sale of state companies: "[t]he success of the electric company bodes very well for future capitalizations," "I think this sends a message to the investment community that Bolivia is serious."[57]

53. Energy Initiatives was successful in its bid for a stake in Empresa Guaracachi SAM, which had three gas-fired plants totaling 248.6 MW, with a US$47.13 million bid.[58] Dominion Energy, an affiliate of Virginia Power, won the right to take a 50 percent share in Empresa Corani SAM, which owned two hydroelectric projects on the Corani River with total capacity of 126 MW, based on a bid of US$58.8 million. Constellation Energy, an affiliate of Baltimore Gas & Electric, won a stake in Empresa Valle Hermoso SAM, which had a total of 181.5 MW in operation and under construction, with a bid of US$33.92 million.

54. Energy Initiatives was a subsidiary of GPU that developed, invested in and operated energy supply facilities both domestically and internationally.[59] At the time, Energy Initiatives operated or had interests in 968 megawatts of capacity throughout the United States, and international projects, including a 24-megawatt wood-burning project under construction in Nova Scotia, a 750-megawatt, gas-fired project in Colombia and several projects under development in other parts of Latin America and the Far East.

55. As described by GPU's chairman, president and chief executive officer at the time, James R. Leva: "[t]he investment is a logical step in GPU's well-planned, orderly expansion of its core business into selected international and domestic

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Report of Peter Earl – Bolivia 1994: The Capitalization of ENDE and Electricity Sector Reform in Bolivia," including Government of Bolivia advertisement entitled "Capitalization of Public Enterprises in Bolivia," 5 December 1994, **Exhibit C-55**, p. 4.

57 "International Business; Bolivia Sells Utility to US Companies," *N.Y. Times*, 1 July 1995, **Exhibit C-58**.

58 "524 MW of Bolivian Generation Won By Three Utility Affiliates in the US," *Electric Utility Week*, 10 July 1995, **Exhibit C-60**.

59 "GPU Unit Acquires 50 percent of Bolivian Energy Company," *Business Wire*, 3 July 1995, **Exhibit C-59**. *See also* Earl WS, ¶ 29.

energy markets."[60] Prior to submitting its bid to acquire a 50 percent interest in Guaracachi, GPU conducted considerable due diligence, including, among other things, a careful evaluation of the facilities owned by Guaracachi and "the political, legal and regulatory climate in Bolivia," utilizing its own personnel as well as financial, legal, engineering, and accounting advisors in Bolivia.[61]

56. In arriving at its bid amount of US$47.13 million, GPU recognized not only the value of Guaracachi's fixed assets but, importantly, the value of the business based on expectations created pursuant to the commitments and protections enshrined in the Electricity Law.

57. Having won the tender process, GPU was entitled to subscribe for 50 percent of the shares in the newly capitalized Guaracachi for a cash injection of US$47.13 million.[62] In accordance with the terms of the Bidding Rules, the successful bidder was required to be a corporation whose purpose was to subscribe to the shares in the tendered company.[63] As a result, GPU established a subsidiary, Claimant Guaracachi America,[64] for the purpose of subscribing to 50 percent of Guaracachi's shares.[65] Consistent with the terms of the Electricity Law,[66]

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60 "GPU Unit Acquires 50 percent of Bolivian Energy Company," *Business Wire*, 3 July 1995, **Exhibit C-59**.

61 GPU, Inc, Form U-1, Post-Effective Amendment No. 12 to SEC File No. 70-8593, 22 July 1997, **Exhibit C‑65**, p. 8.

62 Supreme Decree No. 24047, 29 June 1995, published in *Gaceta Oficial* No.1886 on 30 June 1995, **Exhibit C-9.**

63 Bidding Rules, **Exhibit C-7**, Article 2.3 and the Capitalization Contract, 28 July 1995, **Exhibit C-14**, Articles 3 (definition of "sociedad suscriptora") and 5.1.

64 *See* Receipt evidencing Guaracachi America Inc's subscription to 50% of the shares in Empresa Eléctrica Guaracachi SAM for US$47.131 million, 28 July 1995, **Exhibit C-12**. *See also* Letter from Central Bank of Bolivia to the Minister of Capitalization, 28 July 1995, confirming receipt of US$47.131 million, **Exhibit C-13**.

65 Certificate of Incorporation of Guaracachi America Inc, 13 July 1995, **Exhibit C-11**; Receipt evidencing Guaracachi America Inc's subscription to 50% of the shares in Empresa Eléctrica Guaracachi SAM for US$47.131 million, 28 July 1995, **Exhibit C-12**; Letter from Central Bank of Bolivia to the Minister of Capitalization, 28 July 1995, confirming receipt of US$47.131 million, **Exhibit C-13**; Capitalization Contract, 28 July 1995, **Exhibit C-14**.

66 Law No. 1604, 21 December 1994, published in the *Gaceta Oficial* No. 1862 on 21 December 1994, **Exhibit C-5**, Article 23.

Guaracachi was thereafter granted a 30-year electricity generation license for each of its three power stations as well as license contracts.[67] The license with respect to Guaracachi was subsequently extended for an additional ten-year period.[68]

58. In accordance with the Adjudication Decree,[69] on 28 July 1995 a "Capitalization Contract" was entered into by Bolivia (acting through the Ministry), Guaracachi America and Guaracachi (among other parties). This contract provided for the payment and use of the sum paid for the share subscription, 90 percent of which was to be applied towards capital investments in generation capacity within a period of seven years.[70]

2. The satisfaction of the investment obligation in the Capitalization Contract in 1999

59. At the time of capitalization Guaracachi's total installed generation capacity was 248.6 MW, much of which was generated by outdated technology. Guaracachi set out specifically to change this, deciding that the massive investment required to install state-of-the-art turbines at Guaracachi's plants would be easily offset by the resulting gains in capacity and efficiency.[71]

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67 *See* License Contract for Power Generation at the Guaracachi Plant between the Superintendent of Electricity and Empresa Eléctrica Guaracachi SA, 21 December 1998, **Exhibit C-22**; License Contract for Power Generation at the Aranjuez Plant between the Superintendent of Electricity and Empresa Eléctrica Guaracachi SA, 27 April 1999, **Exhibit C-23**; and License Contract for Power Generation at the Karachipampa Plant between the Superintendent of Electricity and Empresa Eléctrica Guaracachi SA, 27 April 1999, **Exhibit C-24**; Resolution SSDE No. 143/97, 4 December 1997, **Exhibit C-15**; Resolution SSDE No. 230/98, 18 December 1998, **Exhibit C-18**; SSDE No. 231/98, 18 December 1998, **Exhibit C-19**; Resolution SSDE No. 232/98, 18 December 1998, **Exhibit C-20**; and Resolution SSDE No. 233/98, 18 December 1998, **Exhibit C-21**.

68 Resolution SSDE No 199/2007, 25 June 2007, **Exhibit C-31**.

69 Adjudication Decree, **Exhibit C-9**, Article 3.

70 Capitalization Contract, 28 July 1995, **Exhibit C-14**, Articles 5.1 and 8.

71 *See* 1998 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-66**, p. 4; 1999 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-69**, p. 4; Board Minutes of Empresa Eléctrica Guaracachi SA, 9 July 1999, **Exhibit C-74**, pp. 1-2; Lanza WS, ¶ 22.

60. With this in mind, the Guaracachi Board of Directors and shareholders approved the purchase of two General Electric 6FA heavy-duty gas turbines.[72] The two turbines, known as GCH-9 and GCH-10, were installed at the Guaracachi plant in Santa Cruz and came online in May 1999.[73] As a result, Guaracachi's installed capacity increased by 149.6 MW at a total cost of US$65 million.[74] Importantly, the addition of the turbines was "ahead of schedule and in time for this city [Santa Cruz] of more than one million to avoid scheduled blackouts."[75] As described by Ronald Lantzy, GPU International's then-senior vice president and chief operating officer at the time:

> GPU International's investment in this expansion program continues our commitment to providing our EGSA affiliate with the resources it requires to provide a reliable supply of energy to meet the growing needs of Bolivia.[76]

61. GE's 6FA turbines were released to the market the year before Guaracachi purchased them, making Guaracachi the first electricity generator in Bolivia to install the new technology.[77] These turbines offered significant advantages over older turbine models. Most significantly, the new turbines were approximately 20% more heat-efficient than the Frame 5 technology that they replaced, reducing production costs approximately from US$15-17 to US$10/MwH.[78]

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72 *See* 1998 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-66**, p. 4; Board Minutes of Empresa Eléctrica Guaracachi S.A., 5 April 1998, **Exhibit C-68**, pp. 4-5; Earl WS, ¶ 30; Lanza WS, ¶¶ 26-28.

73 *See* 1999 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-69**, p. 4. The two 6FA turbines are called GCH-9 and GCH-10. Lanza WS, ¶¶ 26-28. *See also* Earl WS, ¶ 30-31; Andrade WS, ¶ 35.

74 *See* 1999 Annual Report of Empresa Eléctrica Guaracachi SA, **Exhibit C-69**, p. 4; Lanza WS, ¶¶ 26, 28.

75 "GPU Sells Ownership Share in California Cogen Plants," *First Energy*, 19 May 1999, **Exhibit C-73**.

76 *Id.*

77 Lanza WS, ¶ 27.

78 *Id.*

62. By 1999, Guaracachi had an installed capacity of 397.6 MW, and produced more than 35 percent of Bolivia's electricity.[79] Because the Bolivian electricity dispatch and spot pricing system favors efficient generators, Guaracachi America's investment in more efficient base load high-technology turbines contributed very significantly to the Bolivian electricity sector's growth. According to Juan Carlos Andrade, Guaracachi's Business and Development Manager at the time the 6FA turbines came online:

> In my opinion, the electricity market of Bolivia was functioning well after the capitalization: the electricity was supplied in an efficient manner, it was of good quality, and it was sold at prices that accurately reflected the cost of the operation of the service. Before the capitalization the electricity prices didn't cover the cost of this.[80]

63. Guaracachi's investments exceeded those of the two other capitalized electricity generation companies in Bolivia. Guaracachi had invested US$72.7 million in Bolivia – 154.3% of its US$47.1-million commitment under the Capitalization Contract.[81] Corani S.A., which had committed to investing US$58.79 million, satisfied 74.7 percent of its obligation by 2002.[82] Valle Hermoso S.A., which had committed to a US$33.92-million investment in Bolivia, satisfied 111.9 percent of its obligation by 2002.[83]

64. Guaracachi's decision to invest amounts beyond those committed in its bid was responsive to the needs of the Bolivian electricity generation sector. In the years leading up to the Capitalization Law, Bolivia had one of the lowest rates of per

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79 Earl WS, ¶ 33; Andrade WS, ¶ 37; Lanza WS, ¶ 28; 1999 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C‑69**, p. 4.

80 Andrade WS, ¶ 37.

81 Gover Barja and Miguel Urquiola, *Capitalization and Privatization in Bolivia: An Approximation to an Evaluation*, February 2003, **Exhibit C-96**, p. 14. *See also* 2009 Annual Report of Empresa Eléctrica Guaracachi SA, **Exhibit C-36**; Capitalization Contract, 28 July 1995, **Exhibit C-14**; Lanza WS, ¶ 19.

82 Gover Barja and Miguel Urquiola, *Capitalization and Privatization in Bolivia: An Approximation to an Evaluation*, February 2003, **Exhibit C-96**, p. 14.

83 *Id.*

capita energy consumption in Latin America – 25 percent of the regional average.[84] The demand for electricity between 1994 and 2000 was expected to grow by about six percent per year, requiring 326 MW of additional capacity.[85] Guaracachi America's investment was an important step toward bridging the gap between this expected trend and existing network generation capacity.

65. As explained above, when Guaracachi America signed the Capitalization Contract in July 1995, it agreed to ensure that Guaracachi would invest 90 percent of the sum it had paid for the share subscription in generation capacity within a period of seven years.[86] This investment target was reached in only four years with the introduction of the two 6FA turbines.[87] Having satisfied the investment obligation in the Capitalization Contract, Guaracachi America was able to increase its shareholding in Guaracachi to 50.001% percent, which it did by an acquisition of shares in 1999.[88] In this way, Guaracachi America came to control the company and was permitted by law to nominate five out of the seven members of its Board of Directors.

66. In 2001, GPU merged with another US company, First Energy Corp. In December 2003, First Energy Corp. sold its stake in Guaracachi to Bolivia Integrated Energy Limited (***BIE***), a subsidiary of Integrated Energy Limited (***IEL***), a company incorporated in the United Kingdom.

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[84] ESMAP, World Bank and the Bolivian Ministry of Energy and Hydrocarbons, "Primer Seminario sobre Reformas en el Sector Eléctrico Boliviano," Report No. 48268, 1 May 1993, **Exhibit C-52**, p. 41.

[85] Joint UNDP/World Bank Energy Sector Management Assistance Programme, "Bolivia: Restructuring and Capitalization of the Electricity Supply Industry – An Outline for Change," Report No. 21520, **Exhibit C-61**, p. 19.

[86] Capitalization Contract, 28 July 1995, **Exhibit C-14**, Articles 5.1 and 8; Notice of Arbitration, ¶ 23.

[87] *See* 2009 Annual Report of Empresa Eléctrica Guaracachi SA, 14 April 2010, **Exhibit C-36**, p.57; Notice of Arbitration, ¶ 24. *See also* Blanco WS, ¶ 30.

[88] 2009 Annual Report of Empresa Eléctrica Guaracachi SA, 14 April 2010, **Exhibit C-36**, p. 57 showing Guaracachi America's ownership of 1,679,184 shares out of a total of 3,358,284 shares, i.e. 50.001%. *See also* Notice of Arbitration, ¶ 24.

3. Acquisition of an interest in Guaracachi by Rurelec

67. In December 2005, Rurelec contracted to acquire Guaracachi America for US$41.2 million through its wholly-owned subsidiary Birdsong Overseas Limited. The transaction closed on 6 January 2006.[89] As a result, Rurelec acquired a controlling stake of 50.001 percent in Guaracachi.

68. Peter Earl, Rurelec's CEO, explains the rationale for the acquisition of a controlling interest in Guaracachi as follows:

> Given the clear regulatory framework, and also given the impact of Bolivia's electricity system on the lives of ordinary Bolivians, I was confident that the Government would not seek to otherwise disrupt the sector and violate its commitments to investors such as Rurelec.[90]

69. By the time Rurelec decided to invest in Guaracachi, the legal and regulatory framework introduced in the sector along with privatization more than ten years before had been respected and indeed promoted by Bolivia. This was one of the reasons that an acquisition of a majority interest in Guaracachi was particularly attractive to Rurelec.[91]

4. Increased generation capacity to meet increased demand between 2006 and 2010

70. Since Rurelec's acquisition of a majority stake in Guaracachi in 2006, Guaracachi has built 185 MW of new high-efficiency power plant capacity to meet increased demand, investing approximately US$110 million. This new capacity resulted from the addition of seven Jenbacher gas engines and a third GE 6FA gas

[89] *See* Certificate of Incorporation of Birdsong Overseas Limited, 7 December 2005, **Exhibit C-29**; Share Certificate evidencing Rurelec's 100% stake in Birdsong Overseas Limited, 8 December 2005, **Exhibit C-30**; Certificate of Incorporation of Bolivia Integrated Energy Limited, 22 August 2002, **Exhibit C-25**; Share Certificate evidencing Birdsong Overseas Limited's 100% stake in Bolivia Integrated Energy Limited, 29 June 2009, **Exhibit C-35**; Share Certificate and Share Register evidencing Bolivia Integrated Energy Limited's 100% stake in Guaracachi America, 11 December 2003, **Exhibit C-27**.

[90] Earl WS, ¶ 39.

[91] Earl WS, ¶ 39.

turbine.[92] A combined cycle gas turbine project, commenced in 2007 and representing approximately US$83 million in investment, was the first of its kind in Bolivia and once online would increase capacity even further.[93]

71. These investments, sponsored by the Claimants through the reinvestment of Guaracachi's returns and the foregoing of dividends, were encouraged and fully supported by the Government.[94]

a. Seven Jenbacher 616 Gas Engines (ARJ-9 – ARJ-15)

72. Between 2006 and 2008, Guaracachi installed 7 Jenbacher natural gas engines in the Aranjuez plant in Sucre.[95] The Jenbacher engines ensured the reliability of power supplies in Bolivia's capital city.[96] Each of these engines has a nominal capacity of 1.9 MW, for a total increased capacity of 13.3 MW.[97] These new engines are the most thermally efficient power production units in the country.[98] They also have the lowest emissions of greenhouse gases of any thermal generator. They replaced older Worthington and Nordberg reciprocating engines, which ran partly on diesel and consumed more fuel per generated unit.[99]

73. Having installed the new Jenbacher engines at the Aranjuez plant, Guaracachi then decommissioned and sold four of the Worthington engines at a profit.[100]

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92 2009 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-36**, pp. 12, 22.

93 2008 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-32**, pp. 7, 22, 25. This project was initially contemplated in Guaracachi's original power generation license, *see* Resolution SSDE No. 143/97, 4 December 1997, **Exhibit C-15**, Annex A; Lanza WS, ¶ 36.

94 *See, e.g.*, Resolution SSDE No. 232/98, 18 December 1998, **Exhibit C-20**.

95 2006 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-114**; 2008 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-32**; Earl WS, ¶¶ 45, 48; Aliaga WS, ¶ 22; Lanza WS, ¶¶ 40-42. These were turbines ARJ-9 through ARJ-15.

96 Lanza WS, ¶ 41.

97 Aliaga WS, ¶ 22; Lanza WS, ¶¶ 40-42.

98 2006 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-114**; 2008 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-32**.

99 Lanza WS, ¶ 41.

100 Lanza WS, ¶ 41; Earl WS, ¶¶ 51-55; Aliaga WS, ¶¶ 18-20.

Rurelec purchased two of them in 2004 through the acquisition of a Guaracachi subsidiary, Energía para Sistemas Aislados ESA S.A. (***ESA***) for US$550,000.[101] In 2004, ESA was reincorporated by Rurelec as Energía para Sistemas Aislados Energais S.A. (***Energais***).[102] The decommissioning and removal of the two engines was duly approved by Guaracachi's Board of Directors and shareholders, as well as by the Government.[103] Once decommissioned, the Worthington engines were dismantled and stored at Guaracachi's facilities in Sucre, on Energais's behalf. As explained below, although these engines are the property of Energais, they were later seized by Bolivia in the months following its nationalization of Guaracachi.

74. Guaracachi sold the other two Worthington engines that remained at the Aranjuez plant to European Power Systems AG (***EPS***) under terms comparable to the Rurelec sale.[104]

b. An Additional General Electric Frame 6FA Gas Turbine (GCH-11)

75. Guaracachi also installed another GE 6FA gas turbine at the Guaracachi plant in 2007, similar to the ones that had been installed there eight years earlier.[105] This added 74.8 MW of nominal capacity to the system.[106]

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[101] *See* Agreement for the Sale and Purchase of Empresa para Sistemas Aislados ESA S.A. between Empresa Eléctrica Guaracachi S.A. and Rurelec PLC, 8 October 2004, **Exhibit C-103**; Amendment to the Agreement for the Sale and Purchase of Empresa para Sistemas Aislados ESA S.A. between Empresa Eléctrica Guaracachi S.A. and Rurelec PLC, 28 February 2005, **Exhibit C-109**; Receipts for the transfer of funds from Rurelec to Guaracachi, 13 October 2004 and 4 March 2005, **Exhibit C-104**. *See also* Audited Financial Statements of Empresa para Sistemas Aislados ESA S.A., 27 May 2004, **Exhibit C-100**; Audited Financial Statements of Empresa para Sistemas Aislados ESA S.A., 30 September 2004, **Exhibit C-102**; Audited Financial Statements of Empresa para Sistemas Aislados ESA S.A., 31 December 2004, **Exhibit C-107**. ESA later changed its name to Energais. Testimonio 2388/2005, 30 December 2005, **Exhibit C-112.**

[102] Testimonio 2388/2005, 30 December 2005, **Exhibit C-112.**

[103] Resolution SSDE 147/2000, 6 December 2001, **Exhibit C-89**; Contract Modifying the Aranjuez Generation License, 6 April 2001, **Exhibit C-87**; Testimonio 529/2004, 14 September 2004, **Exhibit C-101**.

[104] Earl WS, ¶¶ 51-53; Aliaga WS, ¶ 20.

c. The Combined Cycle Gas Turbine Project (CCGT)

76. Guaracachi's most ambitious project was the Combined Cycle Gas Turbine (***CCGT***) project, which aimed to convert two of the GE 6FA turbines at the Santa Cruz plant to a technologically cutting-edge combined-cycle system.[107] The CCGT project was initially contemplated in Guaracachi's original power generation license, and scheduled to come online in November 2010.[108]

77. José Antonio Lanza, Guaracachi's Business Development Manager at the time the CCGT was initiated and the person most directly involved with the installation, describes the operation of the CCGT:

> In a combined cycle system, the first step of the cycle involves a simple cycle gas turbine: as gas is burned, the heat generated provides the thrust for a rotating gas turbine and the coupled generator produces electricity. In the second step, the hot gases leaving the simple cycle gas turbine pass into a boiler (called the Heat Recovery Steam Generator, or HRSG) to produce steam. The steam then rotates a steam turbine and coupled generator to produce electricity.[109]

78. The CCGT was the largest single investment that Guaracachi made prior to nationalization.[110] The project, the first of its kind in Bolivia, contributes to sustainable development in Bolivia in a multitude of ways, as recognized by the United Nations Framework on Climate Change.[111]

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105 2007 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-126,** p. 5; Earl WS, ¶ 44; Andrade WS, ¶ 41; Lanza WS, ¶¶ 29-31. This was turbine GCH-11.

106 2006 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-114,** pp. 5-6; 2008 Annual Report of Empresa Eléctrica Guaracachi SA, **Exhibit C-32**; Earl WS**,** ¶ 46; Lanza WS, ¶ 28.

107 Aliaga WS, ¶ 24; Lanza WS, ¶¶ 32-38; Andrade WS, ¶¶ 42-43.

108 Resolution SSDE No. 143/97, 4 December 1997, **Exhibit C-15**, Annex A. *See also* Earl WS, ¶ 47; Aliaga WS, ¶ 24.

109 Lanza WS, ¶ 33.

110 Presentation to a General Meeting of the Guaracachi Shareholders, "Proyecto Conversión a Ciclo Combinado/GCH-12," September 2008, **Exhibit C-161**, p. 2; Lanza WS, ¶ 36.

111 United Nations Framework on Climate Change, Project 2671, Clean Development Mechanism Project Design Document Form, Version 03, 28 July 2006, **Exhibit C-121**, p. 3.

79. In order to finance the CCGT Project, the Claimants and Guaracachi's management team pioneered a methodology for obtaining carbon credits under the UN Clean Development Mechanism and the negotiation of forward-sale contracts for those credits in order to bolster the value of the CCGT project and strengthen Guaracachi's cash flow and credit position.[112]

5. The improvements resulting from the Claimants' investments by 2010

a. Increased Generation Capacity

80. By 2010, Guaracachi was more technologically advanced, and its generation capacity was 2.5 times greater, than it was before capitalization.[113] Guaracachi became the largest power generator in Bolivia, with over a third of the effective capacity in the national interconnected electricity system.[114]

81. Bolivia directly benefited from these investments. Between 2006 and 2009, peak demand in Bolivia grew by 15.5 percent. Absent Guaracachi's investments in additional generation capacity during that period, Bolivia's electricity supply would have been insufficient to satisfy demand.[115]

82. In 2007, Guaracachi recorded its largest profit since privatization in 1995.[116] Guaracachi achieved A+ debt ratings from Fitch for its US$40 million unsecured bond program,[117] enjoyed competitive interest rates for its loans with CAF for the CCGT Project,[118] and enjoyed strong domestic relationships with local banks –

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[112] Notice of Arbitration, ¶ 30; Earl WS, ¶ 47; Blanco WS, ¶¶ 33-35; Andrade WS, ¶¶ 43-44.

[113] Notice of Arbitration, ¶ 31.

[114] Notice of Arbitration, ¶ 31.

[115] Earl WS, ¶ 48.

[116] 2007 Annual Report of Empresa Eléctrica Guaracachi S.A., **Exhibit C-126**.

[117] Fitch Rating for Empresa Guaracachi S.A., December 2005, **Exhibit C-111**; Earl WS, ¶ 50; Blanco WS, ¶ 28.

[118] Blanco WS, ¶ 27.

Banco de Crédito, Banco Mercantil Santa Cruz, Banco BISA and Banco Económico.[119]

b. Rural Electrification Projects

83. Guaracachi also supported efforts to bring electricity to the underserved population of Bolivia, becoming the first privatized company to enter into a "solidarity pact" with the Presidential Delegation for Capitalization.[120] Jaime Aliaga, the General Manager of Guaracachi between July 2004 and the nationalization, describes the company's commitment to rural electrification:

> In August 2009, at the request of the Government of Bolivia, Guaracachi agreed to a public-private partnership whereby it took administrative control of the San Matías electricity distribution network. In doing so, Guaracachi agreed to expand power supplies both to the surrounding region in Bolivia and to the immediate border area in Brazil.
>
> On 24 August 2009, the San Matías project was formally inaugurated. I recall that following the inauguration, Bolivia's Minister of Energy, Oscar Coca, commented that the Government's goal of improving the reliability of the power supply in the immediate area of San Matías would be met by this project. In fact, at that time, it was my understanding that the supply of constant and cheap energy in the area was a key aim of the Bolivian Government.[121]

84. As a direct result of Guaracachi's leadership on rural electrification, the percentage of Bolivians living without electricity dropped significantly in recent years.[122]

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119 Blanco WS, ¶ 25.

120 Aliaga WS, ¶¶ 25-26.

121 Aliaga WS, ¶¶ 25-26.

122 *See* Aliaga WS, ¶¶ 25-29.

c. Other Benefits

85. Guaracachi's commitment to developing the Bolivian energy sector went beyond merely adding additional generation capacity; the company wanted to invest in Bolivia's human capital as well. Guaracachi constructed new training and meeting facilities – the heart of an initiative to train skilled Bolivian electricians and engineers to meet the expansion needs of the company.[123] The Claimants ensured that Guaracachi's Bolivian management was trained and empowered to undertake project development, thereby facilitating the transfer of technology and know-how to Bolivia.

86. In 2005, Guaracachi launched its ISO 14001 and ISO OHSAS 18001 programmes to ensure the company applied the highest international standards for health and safety.[124] By April 2010, Guaracachi was in the final stages for certification of these programmes.[125]

87. In 2006, Guaracachi agreed to finance a subsidy to low-income residential consumers called the "dignity tariff." Guaracachi agreed to facilitate this subsidy for an initial period of four years, which was renewed in 2010 (the ***Dignity Tariff Agreement***).[126] As explained above, in exchange for this private subsidy to the poorer consumers, the Government confirmed its commitment not to modify the existing regulatory framework in the Dignity Tariff Agreement. Between 2006 and 2009, Guaracachi paid approximately US$ 2.7 million to finance the dignity tariff.[127] The conclusion of the Dignity Tariff Agreement resulted in a 25% rebate in electricity charges for urban customers receiving up to 70 KwH/month and

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[123] Aliaga WS, ¶ 30; Notice of Arbitration, ¶ 30.

[124] Aliaga WS, ¶ 30.

[125] Aliaga WS, ¶ 30.

[126] **Exhibit C-119**, Agreement of the Strategic Alliance Between the Government of Bolivia and the Electricity Companies, 21 March 2006, Article 5; 2006 Annual Report of Empresa Guaracachi S.A., **Exhibit C-114**, p. 26.

[127] The Government implemented the dignity tariff through Supreme Decree No. 28,653 on 21 March 2006, **Exhibit C-118**; Aliaga WS, ¶ 27.

rural customers receiving up to 30 KwH/month.

88. In 2007, Guaracachi agreed to share part of the financial benefit of its carbon credits through its CCGT project. As explained above, Guaracachi was eligible for carbon credits under the United Nations Clean Development Mechanism under the Kyoto Protocol. Guaracachi agreed to share the financial benefit of those credits by sponsoring and investing in social programmes through an agreement with the Vice–Ministry of Land Planning and Environment.[128]

E. BOLIVIA'S PRE-NATIONALIZATION MEASURES AFFECTING THE REGULATORY FRAMEWORK

1. The Government's manipulation of the Regulatory Framework for capacity prices

89. The methodology to determine capacity prices was established by Bolivia's Superintendencia de Electricidad in 2001, in the form of Operating Norm SSDE No. 19/2001.[129] Pursuant to this Operating Norm, for the period from January 2001 onwards, capacity prices payable to Guaracachi and the generators were to be updated every six months, and depended on three variables:

(a) Plant Unitary Costs: These are costs principally driven by the per MW cost of installing a greenfield turbine, with a reference cost based on the import price "FOB" of a thermal simple-cycle generation unit, plus any additional costs needed to install such unit;

(b) Unavailability Factor: This reflects a discount applied to the plant unitary costs to account for the probability of reduction in the available capacity due to unpredictable events; and

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[128] 2007 Annual Report of Empresa Guaracachi S.A., **Exhibit C-126**, pp. 5-6.

[129] Operating Norm. No 19, "Determinación de Precio Básico de la Potencia de Punta," as framed in Resolution SSDE No. 121/2001, 2 August 2001, **Exhibit C-88**; *see also* Compass Lexecon Report, ¶¶ 34-38.

(c) Scheduled Unavailability Factor: This accounts for the number of days in which the generating unit will be out of commission for scheduled maintenance.[130]

90. In March 2001, Supreme Decree No. 26094 approved the Reglamentos de Precios y Tarifas (***RPT***), where Article 18 clearly states that additional costs payable as a component of capacity payments shall not exceed 50% of the turbine FOB price.[131] Five months later, in August 2001, Resolution SSDE No. 121/2001 introduced a category for complementary equipment, which accounts for an additional 20% of the turbine FOB price, on top of the 50% figure established in the RPT.[132]

91. On 8 February 2007, the Government – through Resolution SSDE No. 040 – eliminated the complementary equipment head of 20% in the calculation of capacity prices, resulting in a 17% decrease of capacity prices, keeping other variables constant.[133] This reduction did not follow the correct procedure and was based on a study commissioned from experts that raised several concerns with Guaracachi. The introduction of Resolution SSDE No. 040 had a significant impact on Guaracachi's cash flows.[134]

92. In light of its concerns with the manner and substance of this change to the capacity payment, Guaracachi pursued all available challenges to the measure.[135] On 22 March 2007, it challenged the measure in an administrative proceeding

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[130] *Id.*; Aliaga WS, ¶ 34.

[131] Supreme Decree No. 26094/2001, **Exhibit C-86**.

[132] Operating Norm. No 19, "Determinación de Precio Básico de la Potencia de Punta," as framed in Resolution SSDE No. 121/2001, 2 August 2001, **Exhibit C-88**.

[133] Resolution SSDE No. 040/2007, dated 8 February 2007, **Exhibit C-129**; Aliaga WS, ¶ 39; Andrade WS, ¶¶ 45-50.

[134] Compass Lexecon Report, ¶¶ 34-38, 126-136.

[135] *See generally*, Aliaga WS, ¶¶ 40-44; Andrade WS, ¶ 51.

before the Superintendency of Electricity.[136] On 10 May 2007, the Superintendency of Electricity denied this challenge through Resolution SSDE No. 154/2007.[137] On 31 May 2007, Guaracachi then filed a hierarchical appeal of this decision before SIRESE.[138] On 8 January 2008, SIRESE denied this challenge in Resolution No. 1612.[139]

93. Guaracachi filed an action before the Supreme Court of Bolivia on 3 April 2008.[140] On 1 July 2008, SIRESE filed a response to Guaracachi's action.[141] On 28 August 2008, Guaracachi filed a reply to SIRESE's response.[142] More than three and a half years later and nearly four years since commencing proceedings, this challenge remains pending before the Bolivian Supreme Court. There is no higher court to which Guaracachi may seek relief. The matter appears to have been shelved whilst the Government enjoys the political benefits of lower electricity prices.

94. Concurrently with the first series of technical challenges to Resolution 40, Guaracachi also challenged the procedural aspects of the resolution, which were implemented through Resolution CNDC 209/2007-1.[143] As with the action challenging Resolution 40, Guaracachi's procedural action has remained pending

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[136] Revocatory Appeal of Resolution SSDE Nos. 18/2007, 021/2007 and 40/2007, and Resolution CNDC No. 209/2007-1, 22 March 2007, **Exhibit C-134**.

[137] Appeal by Guaracachi of Resolution SSDE No. 1612/2008, 3 April 2008, **Exhibit C-151**, p. 2.

[138] Hierarchical Appeal of Administrative Resolution 154/2007, 31 May 2007, **Exhibit C-139**.

[139] Appeal by Guaracachi of Resolution SSDE No. 1612, 3 April 2008, **Exhibit C-151**, p. 2.

[140] Appeal by Guaracachi of Resolution SSDE No. 1612, 3 April 2008, **Exhibit C-151**; Aliaga WS, ¶ 42.

[141] Response by SIRESE to the Appeal of Resolution SSDE No. 1612/2008, 1 July 2008, **Exhibit C-155**.

[142] Reply by Guaracachi in the Appeal of Resolution SSDE No. 1612/2008, 28 August 2008, **Exhibit C-159**.

[143] Petition for Annulment of Resolution CNDC 209/2007-1, 12 February 2007, **Exhibit C-130**; Revocatory Appeal of CNDC Resolution 209/2007-1, 9 March 2007, **Exhibit C-133**; *see generally*, Aliaga WS, ¶¶ 43-45; Andrade WS, ¶ 50.

before the Supreme Court for more than three years without resolution or any other action.[144]

2. The Government's manipulation of the Regulatory Framework for spot prices

95. As described above at paragraphs 44-45, the Bolivian regulatory framework established that the spot price received by electricity generators should be equal to the marginal cost of the system.[145] The calculation of the system's marginal cost was based on the marginal cost of the thermal generating units called to supply electricity as the "marginal unit."[146] Until 2008, all thermal units were candidates for selection as the marginal unit.[147]

96. In June 2008, Bolivia altered the regulations applicable to spot prices by the introduction of Supreme Decree No. 29,599.[148] This decree was later implemented on 29 August 2008 in the form of Resolution SSDE No. 283/2008.[149] This resolution excluded all liquid fuel units from the calculation of costs for spot-price setting. Since liquid fuel generators have the highest marginal costs, this measure artificially depressed the spot prices whenever these turbines were dispatched, resulting in the most efficient generating companies (such as Guaracachi) losing a substantial part of their profit margin.[150]

97. As Mr. Andrade notes in his statement:[151]

> This change decreased spot energy prices since the cost of burning

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[144] Appeal by Guaracachi of Resolution SSDE No. 1706/2008, 10 June 2008, **Exhibit C-153**.

[145] Law No. 1604, 21 December 1994, published in the *Gaceta Oficial* No. 1862 on 21 December 1994, **Exhibit C-5**; Aliaga WS, ¶ 49.

[146] Resolution SSDE No. 14/2003, 7 February 2003, **Exhibit C-97**; Aliaga WS, ¶¶ 49, 35, 37.

[147] Aliaga WS, ¶ 37.

[148] Supreme Decree No. 29,599/2008, 11 June 2008, **Exhibit C-154**.

[149] Resolution SSDE No. 283/2008, 29 August 2008, **Exhibit C-160**.

[150] *Id.*; Aliaga WS, ¶ 37; Andrade WS, ¶¶ 55-56.

[151] Andrade WS, ¶ 55-56; Compass Lexecon Report, ¶¶ 39-44, 106-121.

a liquid fuel such as diesel is far greater than cheaper alternatives such as natural gas. It thus abolished the fundamental rule for a uniform price of electricity be paid to *all* generators equal to the declared variable cost of the marginal unit. By interfering with a system that included an economic incentive to build new capacity, Resolution SSDE No. 283 promoted inefficiency: when spot energy prices no longer represent the true cost of producing electricity, incentives to invest are reduced and would lead to scarcity and blackouts.

The aim of the Resolution was clearly to reduce the spot price payable to generators contrary to the regime that had been set up to attract that investment. The interference with the basic economic parameters of the spot price remuneration system significantly negatively impacted Guaracachi's revenues.

F. BOLIVIA NATIONALIZED GUARACACHI WITHOUT PROVIDING ANY COMPENSATION

1. Forcible takeover of Guaracachi's operations by military personnel

98. At about six o'clock in the morning of 1 May 2010, Bolivian military personnel wearing balaclava masks and carrying machine guns forced entry into Guaracachi's offices, breaking doors and smashing windows notwithstanding that there had been instructions to the security guards not to resist entry.[152] A banner was hung from one of the windows with the legend "NACIONALIZADO" and another with the acronym of the state-owned electricity company, ENDE. That same day, President Morales issued the Nationalization Decree, ordering the nationalization of 100% of Guaracachi America's shareholding in Guaracachi and transferring these shares to ENDE.[153]

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[152] *See* "Analistas y opositores cuestionan la medida estatal", *El Deber*, 2 May 2010, **Exhibit C-38**; "Guaracachi: inician proceso de arbitraje", *Los Tiempos*, 14 May 2010, **Exhibit C-41**. *See also* Earl WS, ¶¶ 56-63; Blanco WS, ¶¶ 38-42; Andrade WS, ¶¶ 57-60; Aliaga WS, ¶¶ 52-58; Lanza WS, ¶¶ 46-51.

[153] Supreme Decree No. 0493, 1 May 2010, published in the *Gaceta Oficial* No. 127NEC on 1 May 2010, **Exhibit C-37**, Article 2.

Nationalization of Guaracachi on 1 May 2010 (El Deber)[154]

99. The Guaracachi management was summoned to the building a short time later. Marcelo Blanco, Guaracachi's Finance Director at the time, recalls the scene when he arrived:

> When I arrived at the office, the first thing I saw was a large number of journalists, a Bolivian flag with the word "nationalized" written on a separate banner and several military personnel, all of them armed and in combat gear. One asked me who I was, and contacted someone by radio to authorize my entry. The military personnel formed a kind of corridor that stretched from the entrance of the plant to the second floor. As I was escorted by them I saw that the glass door leading to the offices had been smashed.[155]

100. José Antonio Lanza, the Business Development Manager, offers a similar recollection:

> As I walked through the main door of the plant's office building, I noticed that the door was broken, and shattered glass was all over the floor. Military officers wearing

[154] *See* "Analistas y opositores cuestionan la medida estatal", *El Deber*, 2 May 2010, **Exhibit C-38**. *See also* "Guaracachi: inician proceso de arbitraje", *Los Tiempos*, 14 May 2010, **Exhibit C-41**.

[155] Blanco WS, ¶ 39.

> balaclava masks and armed with machine guns were in every part of the building as I walked through the lobby and hallways. I went upstairs to the offices. Each office I passed was occupied by ENDE and government employees, copying documents and searching through files.[156]

101. A Government official communicated the terms of the Nationalization Decree to Guaracachi's General Manager, Jaime Aliaga Machicao.[157] Mr. Aliaga and Guaracachi's Finance Manager, Marcelo Blanco Quintanilla, were then escorted from the premises.[158]

102. ENDE appointed Mr. Jerges Mercado as the new General Manager of Guaracachi, along with a new Finance Manager and Legal Advisor, in accordance with Article 3 of the Nationalization Decree.[159] By the end of the day, the takeover was complete and Guaracachi's top management had been replaced.

103. The Nationalization Decree provided that ENDE would pay for Guaracachi America's expropriated shareholding in an amount to be determined through a valuation process to be carried out within 120 days.[160] The Decree also provided that alleged liabilities incurred by Guaracachi – including financial, tax, commercial, regulatory, environmental, labor and social liabilities – would be deducted from the amount of compensation.[161]

104. Although Bolivia's president had campaigned on promises of expropriation of the hydrocarbons sector, he had left the electricity sector alone in order to ensure a safe and secure supply of power to the population.[162] Indeed, the nationalization was contrary to assurances from Bolivia as late as the night before the invasion of

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[156] Lanza WS, ¶ 48.

[157] Aliaga WS, ¶ 56.

[158] Blanco WS, ¶ 39; Aliaga WS, ¶ 56; Andrade WS, ¶ 57.

[159] Nationalization Decree, **Exhibit C-37**, Article 3.

[160] *Id.*, Article 2(III).

[161] *Id*., Articles 2(V) and 5.

[162] Earl WS, ¶ 58.

Guaracachi's facilities: Marie Beatriz Souviron, the Bolivian ambassador to the United Kingdom, confirmed in an email to the Foreign and Commonwealth Office that she was not aware of any plans for an expropriation of Rurelec's interest in Guaracachi.[163]

2. The Nationalization Decree contemplated payment through a flawed unilateral valuation process, and no offer of payment of any kind was ever made

105. According to Supreme Decree No. 0493, ENDE was to pay for Guaracachi America's expropriated shareholding within 120 days, in an amount to be determined through a special valuation process.[164] Decree No. 0493 further provided that any alleged liabilities discovered by ENDE were to be deducted from the amount of compensation.[165] This entire process was to be conducted unilaterally by the Government, without any input from the Claimants.

106. But neither Guaracachi America nor Rurelec ever received any payment nor offer of payment for the loss of their interests in Guaracachi, despite a series of meetings organized for this purpose.[166] Between July 2010 and March 2011, only four meetings were convened by the Government with Rurelec and Government representatives, including the Minister of Hydrocarbons and Energy, the Vice Minister of Electricity, the Attorney General, and ENDE's General Manager, amongst others.

107. The first of these meetings took place on 5 July 2010, when Jaime Aliaga, Peter Earl, Rurelec's Bolivian counsel and a representative from the British Embassy met with the Government in La Paz.[167] Claimants offered to consult on the CCGT

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[163] Earl WS, ¶ 59.

[164] Supreme Decree No. 0493, 1 May 2010, published in the Gaceta Oficial No. 127NEC on 1 May 2010, **Exhibit C-37**.

[165] Supreme Decree No. 0493, 1 May 2010, published in the Gaceta Oficial No. 127NEC on 1 May 2010, **Exhibit C-37**.

[166] Aliaga WS, ¶ 56.

[167] Aliaga WS, ¶ 54; Earl WS, ¶ 61.

project and indicated that they would consider re-investing a portion of the compensation received for nationalization in new generation projects provided that a reasonable proposal was made, but no offer of compensation followed.[168]

108. On 8 November 2010, having received no proposal from the Government within the mandated 120 day period, Jaime Aliaga and Peter Earl met with the Government a second time.[169] Rurelec was told that ENDE had contracted with several firms to conduct an economic valuation and legal and technical audits, and had received initial results indicating that Guaracachi America's shareholding had a negative value. No offer of compensation was made at this meeting.

109. On 11 March 2011, Mr. Aliaga and Mr. Andrade met with the Government of Bolivia.[170] The Attorney General informed Claimants that they were working on a proposal but that they faced difficulties in coordinating the efforts of the various authorities that were involved in the process. The Government did not repeat its earlier assertion that Guaracachi America's shareholding in Guaracachi had a negative value, but still no offer of compensation was made.

110. On 30 March 2011, Mr. Aliaga and Mr. Andrade met with the Government for a final time.[171] The Government once again made no proposal of compensation for the expropriation of Guaracachi America's shareholdings.

3. Bolivia has seized Rurelec assets not covered by the Nationalization Decree

111. As explained above, prior to the nationalization, Rurelec subsidiary Energais was storing Worthington engines it had acquired in 2004 at Guaracachi's facilities in

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[168] Minutes of a Meeting between Bolivia, Rurelec and Guaracachi America Inc, 5 July 2010, **Exhibit C-187**; Aliaga WS, ¶ 55.

[169] Aliaga WS, ¶ 56; Earl WS, ¶ 61.

[170] Aliaga WS, ¶ 57; Letter from Hugo Montero to Peter Earl, 14 February 2011, **Exhibit C-191**. *See also* Earl WS, ¶ 62; Andrade WS, ¶ 64.

[171] Aliaga WS, ¶ 58; Andrade WS, ¶ 64.

Sucre.[172] After the nationalization of Guaracachi, Energais requested the release of the Worthington engines so that they could be shipped to its facilities in Argentina.[173]

112. Guaracachi's new Board of Directors and the General Manager of ENDE rejected Energais's request. They claimed that the Engines had been nationalized pursuant to Decree 0493, and therefore belonged to the Bolivian State.

113. The Nationalization Decree provides for the nationalization only of the shareholding interest in Guaracachi held by Rurelec's wholly-owned subsidiary, Guaracachi America. Title to the Worthington engines was transferred by Guaracachi to Energais in 2004, and therefore could not have been covered by the Nationalization Decree. Energais and counsel to Rurelec have written several letters to the Government requesting the return of the engines, to no avail.[174] No compensation has ever been received by Energais in respect to these engines.

G. BOLIVIA'S ACTIONS SINCE NATIONALIZATION

1. Bolivia's blatant and deliberate efforts to minimize the value of Guaracachi

114. Since the nationalization, Bolivia has engaged in a systematic, transparent attempt to minimize the reported value of Guaracachi, presumably to limit the amount of compensation due to the Claimants. The most egregious effort in this regard has been a re-audit of Guaracachi's 2010 finances.

115. In March 2011, Guaracachi's financial statements were approved by the Board of Directors (including ENDE) and PriceWaterhouseCoopers, and reflected earnings

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[172] *See* paragraphs 73-74 above.

[173] Earl WS, ¶ 51; *see* paragraphs 73-74 above.

[174] Earl WS, ¶ 52; Letter from Freshfields to Procurador General del Estado, 25 October 2011, **Exhibit C-199**; Letter from Freshfields to Procurador General del Estado, 29 November 2011, **Exhibit C-201**.

of US$5.8 million.[175] However, on 20 April 2011, the current head of ENDE, Nelson Caballero, wrote a letter to the President of the Board of Directors informing him that he was instructing a new audit of the company's 2010 finances "out of caution," changing the accounting method applicable to Guaracachi's CCGT project loans and to the allegedly higher machine maintenance costs.[176] This resulted in revised financial statements reflecting a loss of US$2.3 million.[177]

116. José Antonio Lanza explains that when he was summoned to a meeting with the General Manager and ENDE, he "strongly disagreed with this re-audit and communicated [this] discontent to Guaracachi's management."[178] Independent trade reports confirm this series of events, and that ENDE's changes to the company's maintenance results in the accounting registers and the financial costs entries from January 2010 "distance the accounting of Guaracachi from Bolivian and international norms and from accounting best practices."[179]

2. Bolivia attempts to manipulate the media in an apparent attempt to reduce damages

117. In addition to the transparent attempt to rewrite Guaracachi's financial history, the Government is currently engaged in a press campaign designed to shift blame for Guaracachi's current challenges to the Claimants.

118. Nelson Caballero, the current head of ENDE, has given a detailed interview to a Bolivian trade periodical, the focus of which is to blame Rurelec for the delays in

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175 2010 Audited Financial Statements of Empresa Eléctrica Guaracachi S.A., 25 March 2011, **Exhibit C-209**, p. 4; "Proyecto Ciclo Combinado 'Enredado' en la Situación Contable de EGSA", *Reporte Energía No. 59*, 16-30 June 2011, **Exhibit C-194**, p. 10; Lanza WS, ¶ 53; Blanco WS, ¶ 40. On the general financial health of Guaracachi, *see* Blanco WS, ¶¶ 20-22.

176 "Proyecto Ciclo Combinado 'Enredado' en la Situación Contable de EGSA", *Reporte Energía No. 59*, 16-30 June 2011, **Exhibit C-194**, p. 10; Lanza WS, ¶ 54; Blanco WS, ¶¶ 43-44.

177 "Proyecto Ciclo Combinado 'Enredado' en la Situación Contable de EGSA", *Reporte Energía No. 59*, 16-30 June 2011, **Exhibit C-194**, p. 10; Lanza WS ¶ 54.

178 Lanza WS, ¶ 55.

179 "Proyecto Ciclo Combinado 'Enredado' en la Situación Contable de EGSA", *Reporte Energía No. 59*, 16-30 June 2011, **Exhibit C-194**, pp. 10-11.

bringing the CCGT project online, as well as for the difference between the basic engineering budget and the final cost of the project.[180] The most direct answer to all such accusations is simply that prior to the nationalization of Guaracachi, all major financing, purchase and scheduling decisions with respect to the CCGT Project were taken by the full Board of Directors and the Shareholders.

119. As a final salvo, in August 2011 assorted Government representatives began publicly blaming the Claimants for the electricity blackouts that by then plagued Bolivia. President Evo Morales suggested that ENDE had inherited a "bankrupt" company from Rurelec and Guaracachi America.[181] Carlos Romero, the Minister of the Presidency, suggested that the Government had nationalized Guaracachi knowing that the company's financial "situation was not ideal."[182]

120. The facts are clear and show such statements for what they are: opportunistic comments that seek to minimize any damages awarded by this tribunal. The Claimants invested significantly more than they had committed into Guaracachi, and dramatically increased electricity capacity in the country, all in an efficient and environmentally-responsible manner.[183] The company's financial statements prior to nationalization demonstrate that the Claimants accomplished this while making consistent profits.[184]

III. JURISDICTION AND APPLICABLE LAW

121. Guaracachi America and Rurelec are protected investors with protected investments in accordance with the terms of the US and UK Treaties, respectively.

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[180] "Esperamos Concluir Hasta Fin de Año con un Superávit de más de US$8MM", *Reporte Energía No. 59*, 16-30 June 2011, **Exhibit C-195**, pp. 8-9.

[181] César Arellano, "Evo: Guaracachi está en quiebra y hay problemas", *Periodista Invitado*, 3 August 2011, **Exhibit C-196**.

[182] "Dicen que se nacionalizó conociendo debilidades", *Página Siete*, 3 August 2011, **Exhibit C-197**.

[183] *See* paragraphs 59-88 above.

[184] Blanco WS, ¶¶ 43.

122. The US Treaty applies to "investment[s] of a national or company of a Party in the territory of the other Party."[185] Guaracachi America fulfils these US Treaty requirements: it is a company constituted under the laws of the United States of America with qualifying investments made within the territory of Bolivia, as explained below.

123. The UK Treaty applies to the qualifying "investments" of "companies" established under the laws of the United Kingdom made within the territory of Bolivia.[186] Rurelec fulfils these requirements: it is a company constituted under the laws of the United Kingdom with protected investments in Bolivia, as explained below.

A. THE CLAIMANTS ARE PROTECTED COMPANIES UNDER THE TREATIES

124. Pursuant to Article I(b) of the US Treaty, the US Treaty applies to any "company of a Party". Articles I(a) and (b) of the US Treaty provide that:

> (a) "company" means any entity constituted or organized under applicable law, whether or not for profit, and whether privately or governmentally owned or controlled, and includes a corporation, trust, partnership, sole proprietorship, branch, joint venture, association, or other organization;
>
> (b) "company of a Party" means a company constituted or organized under the laws of that Party; … .[187]

125. Guaracachi America is a company constituted and organized under the laws in force in Delaware, United States of America.[188] Therefore, Guaracachi America is a qualifying company under the US Treaty.

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185 US Treaty, **Exhibit C-17**, Article I(e).

186 UK Treaty, **Exhibit C-1**, Article 1(a) and (d)(i).

187 US Treaty, **Exhibit C-17**, Articles I(a) and (b).

188 Certificate of Incorporation of Guaracachi America Inc, 13 July 1995, **Exhibit C-11**.

126. The protections of the UK Treaty apply to "companies" of a Contracting Party. Article 1(d) of the UK Treaty defines "companies", in respect of the United Kingdom, as:

> corporations, firms and associations incorporated or constituted under the law in force in any part of the United Kingdom […].[189]

127. Rurelec is a corporation incorporated under the laws in force in England and Wales.[190] Rurelec is therefore a qualifying company under the UK Treaty.

B. THE CLAIMANTS HAVE MADE QUALIFYING INVESTMENTS IN BOLIVIA

128. Article I(d) of the US Treaty provides a broad definition of what constitutes an investment protected by the US Treaty:

> (d) "investment" of a national or company means every kind of investment owned or controlled directly or indirectly by that national or company, and includes investment consisting or taking the form of:
>
> (i) a company;
>
> (ii) shares, stock, and other forms of equity participation, and bonds, debentures, and other forms of debt interests, in a company;
>
> (iii) contractual rights, such as under turnkey, construction or management contracts, producing or revenue-sharing contracts, concessions, or other similar contracts;
>
> (iv) tangible property, including real property; and intangible property, including rights, such as leases, mortgages, liens and pledges;
>
> (v) intellectual property, including: copyrights and related rights, patents, rights in plant varieties, industrial designs, rights in semiconductor layout designs, trade secrets, including

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189 UK Treaty, **Exhibit C-1**, Article 1(d).

190 Certificate of Incorporation of Rurelec plc, 19 July 2004, **Exhibit C-28**.

know-how and confidential business information, trade and service marks, and trade names; and

(vi) rights conferred pursuant to law, such as licenses and permits.

(The list of items in (i) through (vi) above is illustrative and not exhaustive.)[191]

129. Prior to the expropriation of 1 May 2010, Guaracachi America held 50.001% of the shares of Guaracachi, a company established under the laws of Bolivia, an investment, *inter alia*, under Art. I (d)(ii) of the above definition.

130. Articles 1(a) and 1(b) of the UK Treaty give a similarly broad definition of what constitutes an investment protected by the UK Treaty:

(a) "investment" means every kind of asset which is capable of producing returns and in particular, though not exclusively, includes:

(i) movable and immovable property and any other property rights such as mortgages, liens or pledges;

(ii) shares in and stock and debentures of a company and any other form of participation in a company;

(iii) claims to money or to any performance under contract having a financial value;

(iv) intellectual property rights and goodwill;

(v) any business concessions granted by the Contracting Parties in accordance with their respective laws, including concessions to search for, cultivate, extract or exploit natural resources.

A change in the form in which assets are invested does not affect their characters as investments. Investments made before the date of entry into force as well as those made after entry into force shall benefit from the provisions of this Agreement;

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191 US Treaty, **Exhibit C-17**, Article I(d).

> (b) "returns" means the amounts yielded by an investment and in particular, though not exclusively, includes profit, interest, capital gains, dividends, royalties and fees;[192]

131. Prior to the expropriation of the Claimants' investments by Bolivia, Rurelec, through Guaracachi America, owned a 50.001% shareholding in Guaracachi, a company established under the laws of Bolivia.[193] As illustrated in the diagram below, Rurelec held its 50.001% interest in Guaracachi indirectly through its 100% stake in Birdsong Overseas Limited, BIE and Guaracachi America:[194]

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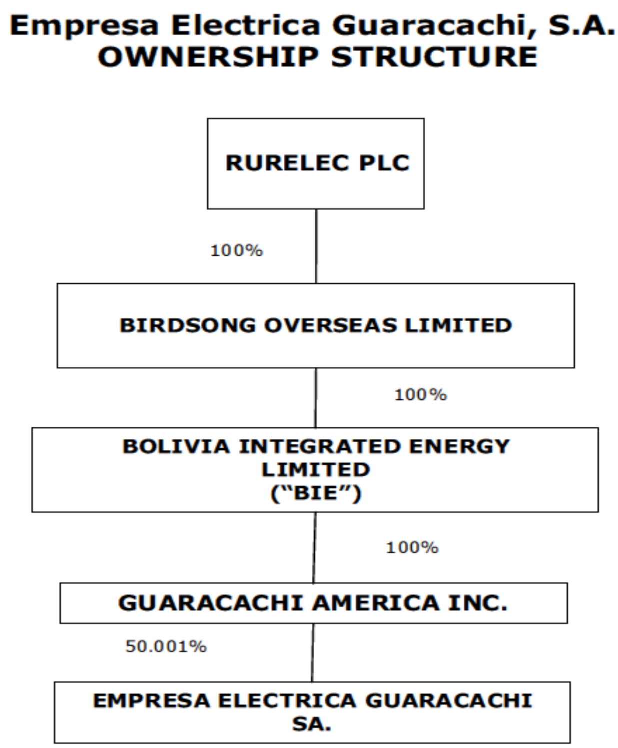
[192] UK Treaty, **Exhibit C-1**, Article 1(a).

[193] Guaracachi America owns a direct 50.001% in Guaracachi. *See* Receipt evidencing Guaracachi America Inc subscription to 50% of the shares in Empresa Eléctrica Guaracachi S.A.M for US$47.131 million, 28 July 1995, **Exhibit C-12**; Share Register and Certificates of Empresa Eléctrica Guaracachi S.A.M, 1995, **Exhibit C-6**; 2009 Annual Report of Empresa Eléctrica Guaracachi SA, **Exhibit C-36**, at p.57 showing Guaracachi America's ownership of 1,679,184 shares out of a total of 3,358,284 shares. Rurelec holds a 50.00l% interest in Guaracachi through its 100% stake in Birdsong Overseas Limited, Bolivia Integrated Energy Limited and Guaracachi America. *See* Certificate of Incorporation of Birdsong Overseas Limited, 7 December 2005, **Exhibit C-29** and Share Certificate evidencing Rurelec's 100% stake in Birdsong Overseas Limited, 8 December 2005, **Exhibit C-30**; Certificate of Incorporation of Bolivia Integrated Energy Limited, 22 August 2002, **Exhibit C-25** and Share Certificate evidencing Birdsong Overseas Limited's 100% stake in Bolivia Integrated Energy Limited, 29 June 2009, **Exhibit C-35**; Certificate of Incorporation of Rurelec plc, 19 July 2004, **Exhibit C-28**; Certificate of Incorporation of Guaracachi America Inc, 13 July 1995, **Exhibit C-11** and Share Certificate and Share Register evidencing Bolivia Integrated Energy Limited's 100% stake in Guaracachi America, 11 December 2003, **Exhibit C-27**.

[194] *See* 2009 Annual Report of Empresa Eléctrica Guaracachi SA, 14 April 2010, **Exhibit C-36**, p.57 showing Guaracachi America's ownership of 1,679,184 shares out of a total of 3,358,284 shares, i.e. 50.001%. *See also* Receipt evidencing Guaracachi America Inc subscription to 50% of Empresa Eléctrica Guaracachi S.A.M for US$47.131 million, 28 July 1995, **Exhibit C-12** and Share Register and Certificates of Empresa Eléctrica Guaracachi S.A.M, 1995, **Exhibit C-6**.



132. In addition, Rurelec owns a 99.998% shareholding in Energía para Sistemas Aislados Energais S.A. (***Energais***), a company established under the laws of Bolivia.[195]

133. The Claimants' investments, through Guaracachi, also included investments in property, intellectual property and rights pursuant to law such as licenses and permits.

134. The Claimants therefore have made significant investments in Bolivia that fall within the definition of "investment" under the Treaties and are thus protected by the Treaties.

[195] Testimonio 2388/2005, 30 December 2005, **Exhibit C-112**.

C. THE PARTIES HAVE CONSENTED TO ARBITRATION OF THIS DISPUTE AND ALL REQUIREMENTS UNDER THE TREATIES AND THE UNCITRAL RULES HAVE BEEN FULFILLED

135. Bolivia expressly and unequivocally consented to resolve investment disputes with US investors through international arbitration by virtue of Article IX of the US Treaty, which provides:

> 1. For purposes of this Treaty, an investment dispute is a dispute between a Party and a national or company of the other Party arising out of or relating to an investment authorization, an investment agreement or an alleged breach of any right conferred, created or recognized by this Treaty with respect to a covered investment.
>
> 2. A national or company that is a party to an investment dispute may submit the dispute for resolution under one of the following alternatives:
>
> (a) to the courts or administrative tribunals of the Party that is a party to the dispute; or
>
> (b) in accordance with any applicable, previously agreed dispute-settlement procedures; or
>
> (c) in accordance with the terms of paragraph 3.
>
> 3. (a) Provided that the national or company concerned has not submitted the dispute for resolution under paragraph 2 (a) or (b), and that three months have elapsed from the date on which the dispute arose, the national or company concerned may submit the dispute for settlement by binding arbitration:
>
> (i) to the [International Centre for Settlement of Investment Disputes], if the Centre is available; or
>
> (ii) to the Additional Facility of the Centre, if the Centre is not available; or
>
> (iii) in accordance with the UNCITRAL Arbitration Rules; or
>
> (iv) if agreed by both parties to the dispute, to any other arbitration institution or in accordance with any other arbitration rules.

> […]
>
> 4. Each Party hereby consents to the submission of any investment dispute for settlement by binding arbitration in accordance with the choice of the national or company under paragraph 3 (a) (i), (ii), and (iii) or the mutual agreement of both parties to the dispute under paragraph 3 (a) (iv). […][196]

136. Similarly, Bolivia expressly and unequivocally consented to resolve investment disputes with UK investors through international arbitration by virtue of Article 8 of the UK Treaty, which provides:

> (1) Disputes between a national or company of one Contracting Party and the other Contracting Party concerning an obligation of the latter under this Agreement in relation to an investment of the former which have not been legally and amicably settled shall after a period of six months from written notification of a claim be submitted to international arbitration if either party to the dispute so wishes.
>
> (2) Where the dispute is referred to international arbitration, the investor and the Contracting Party concerned in the dispute may agree to refer the dispute either to:
>
> (a) the International Centre for the Settlement of Investment Disputes (having regard to the provisions, where applicable, of the Convention on the Settlement of Investment Disputes between States and Nationals of other States, opened for signature at Washington DC on 18 March 1965 and the Additional Facility for the Administration of Conciliation, Arbitration and Fact-Finding Proceedings); or
>
> (b) the Court of Arbitration of the International Chamber of Commerce; or
>
> (c) an international arbitrator or *ad hoc* arbitration tribunal to be appointed by a special agreement or established under the Arbitration Rules of the United Nations Commission on International Trade Law.
>
> If after a period of six months from written notification of the claim there is no agreement to an alternative procedure, the

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[196] US Treaty, **Exhibit C-17**, Article IX.

> parties to the dispute shall be bound to submit it to arbitration under the Arbitration Rules of the United Nations Commission on International Trade Law as then in force. The parties to the dispute may agree in writing to modify these Rules.[197]

137. The provisions of the Treaties constitute Bolivia's consent to arbitration.

138. The Claimants notified Bolivia of the dispute under the Treaties in their written notices of dispute to the President of Bolivia dated and received on 13 May 2010 and sought the commencement of negotiations and consultations for its amicable settlement.[198] Despite the Claimants' efforts, no amicable settlement of the dispute has been reached and both the three and six-month waiting periods following the date on which the dispute arose contemplated in Article IX.3(a) of the US Treaty and Article 8(1) of the UK Treaty, respectively, have now elapsed.

139. The consent of the Claimants was provided in their Notice of Arbitration, dated 24 November 2010. The dispute was therefore duly submitted to arbitration under the UNCITRAL Rules pursuant to Article IX.3(iii) of the US Treaty and Article 8 of the UK Treaty.

140. Guaracachi America has not submitted the dispute under Article IX.2(a) or (b) of the US Treaty, and therefore this clause does not prevent the submission of the dispute to arbitration. Similarly, Rurelec and Bolivia have not agreed on any of the alternative procedures established in Article 8(2)(a) to (c) of the UK Treaty to resolve the dispute.

141. Accordingly, the dispute is validly submitted to arbitration under the UNCITRAL Rules pursuant to Article IX.3(iii) of the US Treaty and Article 8(2), final paragraph, of the UK Treaty, respectively.

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[197] UK Treaty, **Exhibit C-1**, Article 8.

[198] Notices of Dispute, **Exhibit C-39** and **Exhibit C-40**.

D. THE LAW APPLICABLE TO THIS DISPUTE

142. The Claimants' claims are based on treaty provisions, grounded in rights and protections that Bolivia owes directly to them as US and UK investors in Bolivia. International jurisprudence is clear regarding the applicable law in BIT cases: tribunals apply the treaty itself, as *lex specialis*, supplemented by customary international law if necessary.[199] As the Annulment Committee in the *Vivendi* case concluded:

> [I]n respect of a claim based upon a substantive provision of that BIT […] the inquiry which the ICSID tribunal is required to undertake is one governed by the ICSID Convention, by the BIT and by applicable international law. Such an inquiry is neither in principle determined, nor precluded, by any issue of municipal law […].[200]

143. The application of the substantive provisions of a BIT, as *lex specialis*, where jurisdiction is based on the BIT, is unassailable. BITs grant foreign investors direct access to arbitration in order to allow investors to invoke the substantive protections of the BIT itself. Thus, the substantive standards of the Treaty must be the primary applicable law.

144. Further, as the Treaties are international law instruments, international law applies to the extent necessary to supplement or interpret them. This is required by fundamental rules of international law, such as those contained in the Vienna Convention on the Law of Treaties, which provide that treaties are "governed by international law" and must be interpreted in the light of "any relevant rules of

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199 *Asian Agricultural Products Ltd. (AAPL) v. Republic of Sri Lanka*, ICSID Case No. ARB/87/3, Final Award, 27 June 1990, **Exhibit CL-10**, ¶¶ 20-21; *Middle East Cement Shipping and Handling Co. S.A. v. Arab Republic of Egypt*, ICSID Case No. ARB/99/6, Award, 12 April 2002, **Exhibit CL-25**, ¶¶ 85-87.

200 *Compañía de Aguas del Aconquija S.A. and Vivendi Universal (formerly Compagnie Générale des Eaux) v. Argentine Republic*, ICSID Case No. ARB/97/3, Decision on Annulment, 3 July 2002, **Exhibit CL-26**, ¶ 102.

international law."[201] This is also made clear in Article 3 of the International Law Commission's Draft Articles on Responsibility of States for Internationally Wrongful Acts (***ILC Articles***), which states:

> The characterization of an act of a State as internationally wrongful is governed by international law. Such characterization is not affected by the characterization of the same act as lawful by internal law.[202]

145. Thus, the law applicable to the substance of this case is the Treaties supplemented as necessary by principles of international law.

IV. BOLIVIA CONFISCATED THE CLAIMANTS' INVESTMENTS IN VIOLATION OF THE TREATIES

A. BOLIVIA NATIONALIZED THE CLAIMANTS' INVESTMENTS WITHOUT COMPENSATION AND DUE PROCESS, IN BREACH OF THE TREATIES AND INTERNATIONAL LAW

1. Under the Treaties and international law, Bolivia had the obligation to pay prompt and adequate compensation and conduct the nationalization with due process of law

146. The Treaties provide that neither State Party shall nationalize investments of investors of the other State Party except under certain conditions. Article III of the US Treaty provides in relevant part:

> 1. Neither Party shall expropriate or nationalize a covered investment either directly or indirectly through measures tantamount to expropriation or nationalization ("expropriation") except for a public purpose; in a non-discriminatory manner; <u>upon payment of prompt, adequate and effective compensation; and in accordance with due process of law and the general principles of treatment provided for in Article II, paragraph 3</u>.

201 The Vienna Convention on the Law of Treaties, **Exhibit CL-5**, Articles 2(1)(a) and 31(3)(c), respectively.

202 ILC Draft Articles on Responsibility of States for Internationally Wrongful Acts, UNGA Resolution 56/83 of 12 December 2001, **Exhibit CL-21**, Article 3.

> 2. Compensation shall be paid without delay; be equivalent to the fair market value of the expropriated investment immediately before the expropriatory action was taken ("the date of expropriation"); and be fully realizable and freely transferable. The fair market value shall not reflect any change in value occurring because the expropriatory action had become known before the date of expropriation.[203]

147. Article 5(1) of the UK Treaty similarly reads:

> (1) Investments of nationals or companies of either Contracting Party shall not be nationalised, expropriated or subjected to measures having effect equivalent to nationalisation or expropriation (hereinafter referred to as "expropriation") in the territory of the other Contracting Party except for a public purpose and for a social benefit related to the internal needs of that Party and against just and effective compensation. Such compensation shall amount to the market value of the investment expropriated immediately before the expropriation or before the impending expropriation became public knowledge, whichever is the earlier, shall include interest at a normal commercial or legal rate, whichever is applicable in the territory of the expropriating Contracting Party, until the date of payment, shall be made without delay, be effectively realizable and be freely transferable. The national or company affected shall have the right to establish promptly by due process of law in the territory of the Contracting Party making the expropriation the legality of the expropriation and the amount of the compensation in accordance with the principle set out in this paragraph.[204]

148. Accordingly, the legality of a nationalization under the Treaties is conditioned on certain requirements. The following requirements are relevant in the present case:

(a) Compensation must be prompt, or paid without delay;

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[203] Treaty between the Government of the United States of America and the Government of the Republic of Bolivia Concerning the Encouragement and Reciprocal Protection of Investment, signed on 17 April 1998 and entered into force on 6 June 2001, **Exhibit C-17**, Article III.

[204] Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the Republic of Bolivia for the Promotion and Protection of Investments, signed on 24 May 1988 and entered into force on 16 February 1990, **Exhibit C-1**, Article 5(1).

(b) Compensation must be adequate or just, and equal to the fair market value of the investment; and

(c) The nationalization must be conducted in accordance with due process of law.

149. We examine each of those requirements in turn.

a. Compensation must be prompt, or paid without delay

150. The US Treaty provides that compensation for nationalization shall be "prompt" and "paid without delay." The UK Treaty requires also that the payment of compensation "be made without delay."

151. The promptness of compensation is a well-established principle of international law. It has been explicitly referred to in a number of decisions of international tribunals. For example, in the case of the *Norwegian Shipowners' Claims*, the arbitral tribunal spoke of "the right of the claimants to receive <u>immediate</u> and full compensation", and held:

> [T]he Tribunal is of the opinion that full compensation should have been paid, including loss of progress payments, etc., at the latest <u>on the day of the effective taking</u> […].[205]

152. The *Goldenberg* case offers another salient example. There, the arbitrator held:

> [A]lthough international law authorizes the State to make an exception to the principle of respect for the private property of aliens when the public interest so requires, it does so on the condition *sine qua non* that fair payment shall be made for the expropriated or requisitioned property <u>as quickly as possible</u>.[206]

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[205] *Norwegian Shipowners' Claims (Norway v. USA)*, Award, 13 October 1922, UN RIAA Vol. I, **Exhibit CL-1**, p. 342 (emphasis added).

[206] *Goldenberg case (Germany v. Romania)*, Award, 27 September 1928, UN RIAA Vol II, **Exhibit CL-3**, p. 909 (emphasis added).

153. Thus, payment of compensation for expropriation should be provided for contemporaneously with the taking, or should follow it as quickly as possible. In no case should payment of compensation be unduly delayed.

154. Kenneth Vandevelde explains that the prompt compensation obligation codified in the US Model BIT means that "actual payment is but a matter of formality to be effected expeditiously."[207] Professors Sohn and Baxter further note that:

> [T]he passage of several months after the taking without the furnishing by the State of any real indication that compensation would shortly be forthcoming would raise serious doubt that the State intended to make prompt compensation at all.[208]

b. Compensation must be adequate or just, and equal to the fair market value of the investment

155. The US Treaty provides that the amount of compensation for nationalization shall be "adequate" and "equivalent to the fair market value of the expropriated investment." The UK Treaty requires that the compensation be "just" and "amount to the market value of the investment."

156. The Treaties are consistent with international law, which requires full compensation in case of expropriation. The words "adequate," "just," and "genuine" in relation to the amount of compensation are used by BITs interchangeably, and all refer to the standard of full compensation. In the formulation of the tribunal in *CME v. Czech Republic*:

> Today these treaties are truly universal in their reach and essential provisions. They concordantly provide for payment of 'just compensation', representing the 'genuine' or 'fair market' value of the property taken. Some treaties provide for prompt, adequate and effective compensation amounting to the market value of the investment expropriated immediately before the expropriation or before the intention to embark

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[207] K. J. Vandevelde, "U.S. International Investment Agreements" (2009), **Exhibit CL-59**, p. 471.

[208] L. B. Sohn and R. R. Baxter, "Responsibility of States for Injuries to the Economic Interests of Aliens" 55 *American Journal of International Law* (1961), **Exhibit CL-4**, p. 558.

> thereon become public knowledge. Others provide that compensation shall represent the equivalent of the investment affected. These concordant provisions are variations on an agreed, essential theme, namely, that when a State takes foreign property, full compensation must be paid.[209]

157. With regard to the notion of "adequate" compensation, the tribunal in *Biloune v. Ghana* explained:

> Under the principles of customary international law, a claimant whose property has been expropriated by a foreign state is entitled to full compensation – i.e., to prompt, adequate and effective compensation. This generally means that such a claimant is to receive the fair market or actual value of the property at the time of the expropriation […].[210]

158. Likewise, the 1992 World Bank Guidelines on the Treatment of Foreign Direct Investment provide:

> Compensation will be deemed 'adequate' if it is based on the fair market value of the taken asset as such value is determined immediately before the time at which the taking occurred or the decision to take the asset became publicly known.[211]

159. In relation to the concept of "just" compensation, the Iran-US Claims Tribunal held that "'[j]ust compensation' has generally been understood as a compensation equal to the full value of the expropriated assets."[212] Judge Brower argued that the logic for using an asset's "market value" to ascertain its full value is "compelling"

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[209] *CME Czech Republic BV v. The Czech Republic* (UNCITRAL) Final Award, 14 March 2003, (relevant extracts), **Exhibit CL-27**, ¶ 497, and generally, ¶¶ 490-620.

[210] *Biloune and Marine Drive Complex Ltd v. Ghana Investments Centre and the Government of Ghana*, Award on Jurisdiction and Liability, 27 October 1989, in (1994) 95 *International Law Reports* 184, **Exhibit CL-8**, pp. 210-211.

[211] World Bank, "Guidelines on the Treatment of Foreign Direct Investment" reprinted in 7 *ICSID Review – Foreign Investment Law Journal* (1992) 297, **Exhibit CL-13**, p. 303. While the World Bank Guidelines are not binding, they are authoritative. In his introduction to the reprint of these guidelines in the ICSID Review, Ibrahim Shihata, the then Secretary General of ICSID, wrote that the World Bank Guidelines had formulated "progressive standards which are open, fair and consistent both with emerging rules of customary international law and with commendable practices identified by the World Bank Group", *Id.,* at p. 296.

[212] *Amoco International Finance Co v. Islamic Republic of Iran* (Iran-US Claims Tribunal), Award, 14 July 1987, **Exhibit CL-6**, ¶ 209.

because "market price is the most reliable indicator of the actual value of an asset at a determined date."[213]

160. Hence, the Treaties reflect and expressly endorse the general international law principle that compensation must be equivalent to the full value of the asset taken, which is the fair market value of the expropriated investment.

161. It follows that nationalization is unlawful if the compensation offered by the government is below the fair market value of the investment, and consequently inadequate by definition. As held by the tribunal in *Rumeli v. Kazakhstan*:

> [T]he valuation placed on Claimants' shares was manifestly and grossly inadequate compared to the compensation which the Tribunal there holds to be necessary in order to afford adequate compensation under the BIT and the FIL. The Tribunal accordingly holds that the expropriation by the Presidium was unlawful.[214]

c. The nationalization must be conducted with due process of law

162. BIT jurisprudence has interpreted the obligation of due process in relation to expropriatory measures as requiring that the "legal procedure" for the expropriation "be of a nature to grant an affected investor a reasonable chance within a reasonable time to claim its legitimate rights and have its claims heard"; otherwise "the argument that '*the actions are taken under due process of law*' rings hollow."[215]

163. Referring to the decision in *ADC v Hungary*, the tribunal in the *Kardassopulos v. Georgia* held that due process implies the availability of a mechanism for the

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[213] C.N. Brower and J.D. Brueschke, THE IRAN-UNITED STATES CLAIMS TRIBUNAL (The Hague: Martinus Nijhoff Publishers) (1998) Chapter 15 and Chapter 16, **Exhibit CL-16**, p. 539.

[214] *Rumeli Telekom A.S. and Telsim Mobil Telekomikasyon Hizmetteri A.S. v. Republic of Kazakhstan* (ICSID Case No. ARB/05/16), Award, 29 July 2008**, Exhibit CL-52**, ¶ 706.

[215] *ADC Affiliate Limited and ADC & ADMC Management Limited v. The Republic of Hungary* (ICSID Case No. ARB/03/16), Award, 2 October 2006, **Exhibit CL-38**, ¶ 435.

investor to be heard in the compensation process within a reasonable period of time:

> Viewed in its totality, the process by which the Respondent took GTI's rights, and thereby expropriated Mr. Kardassopoulos' investment, cannot by any definition be considered to have been carried out under due process of law […] the Respondent's failure to grant Mr. Kardassopoulos a reasonable chance within a reasonable time to have his claims heard following the expropriation of his investment unquestionably, in the eyes of the Tribunal, falls short of what is required by this criterion.[216]

164. The tribunal in *Al-Bahloul v. Tajikistan* explained the components of due process in relation to expropriation as follows:

> The obligation to provide due process has several facets, some of which overlap:
>
> -- The obligation to notify an investor of hearings and not to decide about a claim in his absence or in gross violation of procedural rules. Breaches may also exist if the procedure is delayed, if the Government influences administrative or court procedures […].
>
> -- The obligation not to maliciously misapply the substantive law. […]
>
> -- The obligation not to use powers for improper purposes, i.e. purposes not covered by the law authorizing the powers. […]
>
> -- The obligation not to act intentionally against the investor to harm his investment. […]
>
> -- The obligation not to exercise unreasonable pressure on an investor to reach certain goals. […][217]

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[216] *Ioannis Kardassopoulos and Ron Fuchs v. Georgia* (ICSID Case Nos. ARB/05/18 and ARB/07/15), Award, 3 March 2010, **Exhibit CL-65**, ¶ 404.

[217] *Mohammad Ammar Al-Bahloul v. Republic of Tajikistan* (SCC Case No. V (064/2008)), Partial Award on Jurisdiction and Liability, 2 September 2009, **Exhibit CL-64**, ¶ 221.

165. In essence, therefore, due process requires that the nationalization be conducted so as to afford to the investor a reasonable opportunity within a reasonable time to secure its rights, including in quantifying adequate compensation. The compensation process must be procedurally and substantially fair. In particular, the due process requirement will be violated if the government uses its powers to deny adequate compensation or to delay the process improperly.

2. Bolivia did not provide prompt and adequate compensation, and did not conduct the nationalization in accordance with due process of law

166. It is uncontroversial on the facts of this case that Bolivia offered no payment to the Claimants in compensation for the nationalization of their participation in Guaracachi, let alone payment that could be considered prompt, adequate and effective under the Treaties.

167. To the contrary, after the nationalization Bolivia took a series of fundamentally unfair measures to ensure that the Claimants would receive no compensation for their assets:

- The 1 May 2010 Nationalization Decree provided that ENDE would pay an amount to be determined through a valuation process to be carried out within 120 days, unilaterally and without any participation from the Claimants;[218]

- The first meeting with the Government took place more than three months after the nationalization, on 5 July 2010. At the meeting, despite GAI and Rurelec's proposals, no offer of compensation was made;[219]

- The second meeting took place on 8 November 2010, more than seven months after the nationalization. No offer of compensation was made, and the

[218] Supreme Decree No. 0493, 1 May 2010, published in the *Gaceta Oficial* No. 127NEC on 1 May 2010, **Exhibit C-37**, Article 2(III).

[219] Minutes of a Meeting between Bolivia, Rurelec and Guaracachi America Inc, 5 July 2010, **Exhibit C-187**.

Government simply announced that it had apparently commissioned economic valuations and legal and technical audits, and had received negative initial results. By this time, the 120-day period that the Government had set for the compensation process had long since elapsed;

- The third meeting took place more than ten months after the nationalization. Again, no offer of compensation was made, with the Government raising unsubstantiated excuses of internal coordination difficulties;

- Bolivia seized Energais's Worthington engines, which were not even covered by the Nationalization Decree. Naturally, no compensation was ever offered to Energais or its majority shareholder, Rurelec, for this expropriation;

- Although Guaracachi's financial statements had been approved in March 2011,[220] the head of ENDE, Nelson Caballero, ordered a new audit that (predictably) resulted in radically inferior results, based on unorthodox accounting practices. This was clearly designed to justify the Government's refusal to provide any compensation;[221]

- The head of ENDE mounted a press campaign against GAI and Rurelec to justify Bolivia's denial of compensation for the nationalization, unfairly blaming Rurelec for delays and costs related to the CCGT project; and

- In August 2011, Government representatives, including President Morales and Minister of the Presidency Romero, began blaming the Claimants for electricity blackouts plaguing Bolivia – again, seeking cover for Bolivia's denial of any compensation for the nationalization of Guaracachi.

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[220] "Proyecto Ciclo Combinado 'Enredado' en la Situación Contable de EGSA", *Reporte Energía No. 59*, 16-30 June 2011, **Exhibit C-194**, p. 10; Lanza WS, ¶ 53.

[221] "Proyecto Ciclo Combinado 'Enredado' en la Situación Contable de EGSA", *Reporte Energía No. 59*, 16-30 June 2011, **Exhibit C-194**, p. 10; Lanza WS, ¶ 54.

168. In short, Bolivia has not provided, nor has it even offered, any compensation to GAI and Rurelec, let alone the requisite compensation equivalent to the fair market value of the Claimants' shareholding in Guaracachi. Rather, Bolivia has engaged in a course of action aimed at denying compensation to the Claimants. The efforts to manipulate Guaracachi's 2010 financial statements, ENDE's press campaign and the President and Minister's public statements against GAI and Rurelec are evidence of the Government's determination to renege upon its obligation under the Treaties to pay prompt and adequate compensation.

169. The nationalization was also conducted in the absence of due process:

- The Decree established a nebulous valuation process that was to be carried out unilaterally by the Government, without the Claimant's knowledge or participation;

- All that was said to the Claimants without any detail was that some firms had been instructed to carry out the analysis and, without any elaboration, that preliminary results were negative;

- In carrying out this process, the Government commissioned audit reports that used unorthodox accounting methods rather than adopting existing financial statements audited by a leading international accounting firm, in an obvious effort to reduce the apparent value of the assets in question;

- Bolivia has never provided the Claimants with a report from this process, nor has a formal conclusion on the amount of compensation ever been tendered; and

- No offer of compensation was ever made.

170. All of these facts mark the Government's failure to ensure due process in the nationalization of the Claimants' investments. There was no independent valuation process. Bolivia denied GAI and Rurelec the opportunity to present

their views on valuation that the Government was apparently conducting. No proper process was ever really put in place, nor were there any rules as to how the valuation was to be conducted. Instead, the Government took whatever steps it felt were necessary to withhold adequate compensation from the Claimants.

171. It follows that Bolivia unlawfully nationalized the Claimant's investments in breach of the Treaties.

B. Bolivia's Alteration Of The Legal Framework With Regard To The Spot Price Breached The Standards Of Treatment Provided For In The Treaties

1. Bolivia breached the fair and equitable treatment standard

a. Fair and equitable treatment is a broad standard

172. The Treaties provide that the State Parties shall treat investments of investors of the other State Party fairly and equitably. Article II.3(a) of the US Treaty reads:

> Each Party shall at all times accord to covered investments fair and equitable treatment […].

173. Article 2(2) of the UK Treaty provides:

> Investments of nationals or companies of each Contracting Party shall at all times be accorded fair and equitable treatment […].

174. It is widely accepted that fair and equitable treatment (***FET***) is an intentionally "broad requirement,"[222] or a "flexible" concept,[223] permitting it to display protective effects in a variety of situations in which State conduct may for whatever motive be regarded as unjust. As one prominent commentator notes:

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[222] *Waguih Elie George Siag and Clorinda Vecchi v. The Arab Republic of Egypt* (ICSID Case No. ARB/05/15), Award, 1 June 2009, **Exhibit CL-62**, ¶ 450.

[223] *Jan de Nul N.V. and Dredging International N.V. v. Arab Republic of Egypt* (ICSID Case No. ARB/04/13) Award, 6 November 2008, **Exhibit CL-56**, ¶ 185.

> It offers a general point of departure in formulating an argument that the foreign investor has not been well treated by reason of discriminatory or other unfair measures being taken against its interests. It is, therefore, a concept that depends on the interpretation of specific facts for its content.[224]

175. Professor Dolzer has rightly commented also on the importance and flexibility of FET:

> [T]he purpose of the clause as used in BIT practice is to fill gaps which may be left by the more specific standards, in order to obtain the level of investor protection intended by the treaties.[225]

176. Writing about the fair and equitable standard under the NAFTA, Charles Brower has confirmed that it gives arbitral tribunals the authority to "articulate a variety of rules necessary to achieve [NAFTA's] object and purpose in particular disputes."[226] As Stephen Vasciannie explains:

> [T]he standard serves the useful purpose of giving foreign investors the opportunity to question administrative and other actions without actually embarking upon deliberations on the requirements of either municipal law or customary law. Investors are thus able to approach host States with the abstract question whether a particular form of treatment is unfair or inequitable in the context of investment relations [...].[227]

177. Thus, FET is a crucial protection for whose application there can be no strict conceptual rigidity. The standard gives latitude to each arbitral tribunal to assess the fairness of State conduct in a particular case in light of all the circumstances. Such latitude is necessary for arbitrators to fulfill their function.

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[224] P. Muchlinski, MULTINATIONAL ENTERPRISES AND THE LAW, (Blackwell, Oxford: 1999), **Exhibit CL-18**, p. 625.

[225] R. Dolzer, "Fair and Equitable Treatment: A Key Standard in Investment Treaties" (2005) 39 *The International Lawyer* 87, **Exhibit CL-32**, p. 90.

[226] C. H. Brower, "Investor-State Disputes Under NAFTA: The Empire Strikes Back" (2001) 40 *Columbia Journal of Transnational Law* 43, **Exhibit CL-22**, p. 56.

[227] S. Vasciannie, "The Fair and Equitable Treatment Standard in International Investment Law and Practice" (1999) 70 *British Year Book of International Law* 99, **Exhibit CL-17**, p. 163.

178. This approach accords with the plain meaning of the terms "fair" and "equitable." Plain meaning is the starting point in the interpretation of any treaty provision.[228] According to Vasciannie:

> Under this approach, treatment is fair when is 'free from bias, fraud or injustice; equitable, legitimate … not taking undue advantage; disposed to concede every reasonable claim'; and, by the same token, equitable treatment is that which is 'characterized by equity or fairness … fair, just, reasonable'.[229]

179. The language of the clause indicates that an investor is entitled to fairness in its dealings with the host State, and this is to be ascertained under ordinary standards and not by any specific threshold.

180. Neither bad faith nor malicious intent is a precondition for establishing breach of the fair and equitable treatment standard. This is consonant with the straightforward purpose of BITs – to encourage and protect investments. In *Azurix v. Argentina*, the tribunal found that:

> there is a common thread in the recent awards […] which does not require bad faith or malicious intention of the recipient State as a necessary element in the failure to treat investment fairly and equitably. […] The standards of conduct agreed by the parties to a BIT presuppose a favourable disposition towards foreign investment, in fact, a pro-active behavior of the State to encourage and protect it. To encourage and protect investment is the purpose of the BIT. It would be incoherent with such purpose and the expectations created by such a document to consider that a party to the BIT has breached the obligation of fair and equitable treatment only when it has acted in bad faith or its conduct can be qualified as outrageous or egregious.[230]

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228 The Vienna Convention on the Law of Treaties, **Exhibit CL-5**, Article 31(1) ("A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose").

229 S. Vasciannie, "The Fair and Equitable Treatment Standard in International Investment Law and Practice" (1999) 70 *British Year Book of International Law* 99, **Exhibit CL-17**, p. 103.

230 *Azurix Corp v. Argentine Republic* (ICSID Case No ARB/01/12), Award, 14 July 2006, **Exhibit CL-37**, ¶ 372. *See also, e.g., CMS Gas Transmission Company v. The Republic of Argentina* (ICSID Case

181. The fair and equitable treatment standard requires proactive protection of investment. In the words of the *MTD v. Chile* tribunal:

> Hence, in terms of the BIT, fair and equitable treatment should be understood to be treatment in an even-handed and just manner, conducive to fostering the promotion of foreign investment. Its terms are framed as a pro-active statement –"to promote", "to create", "to stimulate"- rather than prescriptions for a passive behavior of the State or avoidance of prejudicial conduct to the investors.[231]

182. A similar conclusion can be found in *Saluka v. Czech Republic*:

> The "fair and equitable treatment" standard in Article 3.1 of the Treaty is an autonomous Treaty standard and must be interpreted, in light of the object and purpose of the Treaty, so as to avoid conduct of the Czech Republic that clearly provides disincentives to foreign investors.[232]

183. In applying this standard, the Tribunal must obviously have due regard to all relevant circumstances. It should also consider that, as the tribunal in *PSEG v. Turkey* stated, the fair and equitable treatment standard:

> […] clearly does allow for justice to be done in the absence of the more traditional breaches of international law standards […] and thus ensuring that the protection granted to the investment is fully safeguarded.[233]

No. ARB/01/8), Award, 12 May 2005, **Exhibit CL-35**, ¶ 280; *Occidental Exploration and Production Company v. The Republic of Ecuador* (LCIA), Final Award, 1 July 2004, **Exhibit CL-31**, ¶¶ 183, 186.

[231] *MTD Equity Sdn Bhd and MTD Chile SA v. Republic of Chile* (ICSID Case No. ARB/01/7), Award, 25 May 2004, **Exhibit CL-30**, ¶ 113.

[232] *Saluka Investments BV v. The Czech Republic* (UNCITRAL), Partial Award, 17 March 2006, **Exhibit CL-36**, ¶ 309; *see also Técnicas Medioambientales TECMED S.A. v. Mexico* (ICSID Case No. ARB(AF)/00/2), Award, 29 May 2003, **Exhibit CL-28**, ¶¶ 155, 156.

[233] *PSEG Global Inc., and Konya Ilgin Elektrik Üretim ve Ticaret Limited Sirketi v. Republic of Turkey* (ICSID Case No. ARB/02/5), Award, 19 January 2007, **Exhibit CL-40**, ¶ 239 (emphasis added).

b. Fair and equitable treatment requires stability of the legal framework

184. Applying this broad standard to typical factual situations, international tribunals have developed several specific principles. Central to the relevant jurisprudence is the concept that fair and equitable treatment requires that investors be accorded a stable and predictable investment environment, in accordance with legitimate expectations.[234] In *Bayindir v. Pakistan*, the tribunal articulated this idea succinctly:

> The Tribunal agrees with Bayindir when it identifies the different factors which emerge from decisions of investment tribunals as forming part of the FET standard. These comprise the obligation to act transparently and grant due process, to refrain from taking arbitrary or discriminatory measures, from exercising coercion or from <u>frustrating the investor's reasonable expectations</u> […].[235]

185. In *Lemire v. Ukraine*, the tribunal similarly held:

> The FET standard defined in the BIT is an autonomous treaty standard, whose precise meaning must be established on a case-by-case basis. It requires an action or omission by the State which violates a certain threshold of propriety, causing harm to the investor, and with a causal link between action or omission and harm. The threshold must be defined by the Tribunal, on the basis of the wording of Article II.3 of the BIT, and bearing in mind a number of factors, including among others the following:
>
> - <u>whether the State has failed to offer a stable and predictable legal framework</u>;
>
> - whether the State made specific representations to the investor;

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[234] *Rumeli Telekom A.S. and Telsim Mobil Telekomikasyon Hizmetteri A.S. v. Republic of Kazakhstan* (ICSID Case No. ARB/05/16), Award, 29 July 2008, **Exhibit CL-52**, ¶ 609 ("The case law also confirms that to comply with the standard, the State must respect the investor's reasonable and legitimate expectations").

[235] *Bayindir Insaat Turizm Ticaret Ve Sayani A.Ş. v. Islamic Republic of Pakistan* (ICSID Case No. ARB/03/29), Award, 27 August 2009, **Exhibit CL-63**, ¶ 178 (emphasis added).

> […].[236]

186. *Tecmed v. Mexico* is widely considered to provide the authoritative statement in this regard. In relation to fair and equitable treatment, the arbitrators reasoned:

> The Arbitral Tribunal considers that this provision of the Agreement [FET], in light of the good faith principle established by international law, <u>requires the Contracting Parties to provide to international investments treatment that does not affect the basic expectations that were taken into account by the foreign investor to make the investment</u>. The foreign investor expects the host <u>State to act in a consistent manner</u>, free from ambiguity and totally transparently in its relations with the foreign investor, so that it may know beforehand any and all rules and regulations that will govern its investments […] <u>The foreign investor also expects the host State to act consistently, i.e. without arbitrarily revoking any preexisting decisions</u> […] <u>that were relied upon by the investor to assume its commitments as well as to plan and launch its commercial and business activities</u>. The investor also expects the State to use the legal instruments that govern the actions of the investor or the investment in conformity with the function usually assigned to such instruments, and not to deprive the investor of its investment without the required compensation.[237]

187. It is precisely on this basis that the tribunal in *CME v. Czech Republic* found that the Czech Republic's legislative and regulatory changes had unlawfully harmed CME's investment by altering the country's investment framework, "by evisceration of the arrangements in reliance upon [which] the foreign investor was induced to invest."[238]

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[236] *Joseph Charles Lemire v. Ukraine* (ICSID Case No. ARB/06/18), Decision on Jurisdiction and Liability, 28 March 2011, **Exhibit CL-70**, ¶ 284; *see also Occidental Exploration and Production Company v. The Republic of Ecuador* (LCIA Case No. UN 3467), Final Award, 1 July 2004, **Exhibit CL-31**, ¶¶ 183, 186.

[237] *Técnicas Medioambientales TECMED SA v. The United Mexican States* (ICSID Case No ARB(AF)/00/2), Award, 29 May 2003, **Exhibit CL-28**, ¶ 154 (emphasis added).

[238] *CME Czech Republic BV v. The Czech Republic* (UNCITRAL), Partial Award, 13 September 2001, **Exhibit CL-74**, ¶ 611.

188. In *Azurix v. Argentina*, the tribunal found that an essential element in the "failure to treat investment fairly and equitably […] is the frustration of expectations that the investor may have legitimately taken into account when it made the investment."[239] Similarly, the tribunal in *Siemens v. Argentina* concluded that "the current standard includes the frustration of expectations that the investor may have legitimately taken into account when it made the investment."[240]

c. Bolivia failed to offer a stable and predictable legal framework in accordance with GAI and Rurelec's legitimate expectations

189. In altering spot price regulations, Bolivia undermined the stability and predictability of the legal framework defeating GAI and Rurelec's legitimate expectations.

190. GAI and Rurelec invested in Guaracachi on the basis of the following fundamental principles enshrined in the regulatory framework relating to spot prices:

- In accordance with the Electricity Law, the price paid to generators for power dispatched in the spot market was to be uniform, and determined by the market forces of supply and demand;[241]

- This uniform price was determined by the system's marginal cost of power generation – that is, the variable cost of the least efficient plant running to meet demand at any given time, a system of price-setting that encouraged

[239] *Azurix Corp v. Argentine Republic* (ICSID Case No ARB/01/12), Award, 14 July 2006, **Exhibit CL-37**, ¶ 372.

[240] *Siemens A.G. v. The Argentine Republic* (ICSID Case No ARB/02/8), Award, 6 February 2007, **Exhibit CL-41,** ¶ 299; *see also LESI S.p.A. et ASTALDI S.p.A. v. République Algérienne Démocratique et Populaire* (ICSID Case No. ARB/05/3), Award, 12 November 2008, **Exhibit CL-57**, ¶ 151; *Duke Energy Electroquil Partners & Electroquil S.A. v. Republic of Ecuador* (ICSID Case No ARB/04/19), Award, 18 August 2008, **Exhibit CL-53**, ¶ 339.

[241] Law No. 1604/1994, 21 December 1994, **Exhibit C-5**, Articles 45-55; Supreme Decree No. 26,093/2001, 2 March 2001, **Exhibit C-85**, Articles 66-75; Compass Lexecon Report, ¶¶ 39-44; Earl WS, ¶¶ 18-20; Andrade WS, ¶¶ 51-54.

innovation and established incentives to invest in new generation technology;[242]

- All generators received that uniform price, and were thus able to make a margin, which was equal to the difference between their own variable cost and the variable cost of the least efficient plant.[243]

191. Bolivia altered these fundamental principles in August 2008. Until 2008, all thermal units were candidates for selection as the marginal unit.[244] In August 2008, Resolution SSDE No. 283 excluded all liquid fuel units – the units with the highest marginal costs – as potential marginal unit candidates, thereby artificially depressing the spot prices whenever these turbines are dispatched, resulting in the most efficient generating companies, such as Guaracachi, losing part of their margin.[245]

192. Bolivia thus altered the principles underlying spot price formation, which were essential for the economic viability of the investment. Guaracachi and its shareholders had invested in the power generation business with the legitimate expectation that increased efficiency would be rewarded proportionately by the spot price, since less efficient companies would be considered in the formation of the price. Once this was altered, Guaracachi was denied the opportunity to recover the capital invested and obtain a reasonable return.

193. Thus, Bolivia reneged on its assurances that Guaracachi would be able to obtain a remuneration reflecting its economic costs. By altering the fundamental premises of the Claimants' investment, and frustrating their legitimate expectations, Bolivia breached the FET standard of the Treaties.

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[242] *Id.*

[243] *Id.*

[244] *Id. See also* Aliaga WS, ¶ 37.

[245] Resolution SSDE No. 283/2008, 29 August 2008, **Exhibit C-160**; Aliaga WS ¶ 37.

194. It is important to note that in the ICSID case of *Total v. Argentina*, the tribunal also had to analyse the question of interference in the formation of electricity spot and capacity prices in a market governed by the same regime as applied in Bolivia following privatization. The tribunal held that the fair and equitable treatment obligation protected the claimant against the Argentine government's intervention in the regulatory framework for the formation of capacity and spot prices that had been designed to attract the foreign investors to the state. The tribunal concluded:

> [C]hanges to the regulatory framework applicable to capital intensive long term investments and the operation of utilities can be considered unfair if they are contrary to commonly recognized financial and economic principles of "regulatory fairness" or "regulatory certainty" applied to investments of that type (be they domestic or foreign).[246]
>
> … A foreign investor is entitled to expect that a host state will follow those basic principles (which it has freely established by law) in administering a public interest sector that it has opened to long term foreign investments. Expectations based on such principles are reasonable and hence legitimate, even in the absence of specific promises by the government. Hence, the fair and equitable standard has been breached through the setting of prices that do not remunerate the investment made nor allow reasonable profit to be gained contrary to the principles governing the activities of privately owned generators under Argentina's own legal system. This is especially so in the utility or general interest sectors, which are subject to governmental regulation (be it light or strict), where operators cannot suspend the service, investments are made long term and exit/divestment is difficult.[247]

2. Bolivia breached the full protection and security standard

195. The Treaties provide that the State Parties shall accord investments full protection and security. Article II.3(a) of the US Treaty reads:

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[246] *Total S.A. v. Argentine Republic* (ICSID Case No. ARB/04/1), Decision on Liability, 27 December 2010, **Exhibit CL-69**, ¶ 309 (g).

[247] *Id*., ¶ 333.

> Each Party shall at all times accord to covered investments […] full protection and security.

196. Article 2(2) of the UK Treaty provides:

> Investments of nationals or companies of each Contracting Party [...] shall enjoy full protection and security in the territory of the other Contracting Party.

197. The full protection and security standard is one of due diligence, requiring Bolivia to exercise reasonable care and actively to protect the Claimants' investments. The tribunal in *AAPL v. Sri Lanka*, for example, found that the duty to ensure the protection and security of the investment embodies an "'objective' standard of vigilance" which is violated by the "'mere lack or want of diligence', without any need to establish malice or negligence."[248] In that case, the tribunal found that Sri Lanka could have taken precautionary measures "that could be reasonably expected to prevent" the investor's loss, in particular considering that "such measures fall within the normal exercise of governmental inherent powers".[249]

198. The *AMT v. Zaire* tribunal also interpreted the standard as requiring the active conduct of the host state in taking "all measure of precaution to protect the investments".[250] It is therefore for the host state actively to prevent the occurrence of loss.

199. The withdrawal by the host state of the legal protection and security previously granted to an investment also constitutes a violation of this obligation. In *CME v. Czech Republic*, the tribunal found that the Czech Republic had breached the "full protection and security" protection in the US-Czech Republic BIT by the "amendment of its laws" and "actions of its administrative bodies" which

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[248] *Asian Agricultural Products Ltd v. Sri Lanka* (ICSID Case No. ARB/87/3), Final Award, 27 June 1990, **Exhibit CL-10**, ¶ 77.

[249] *Id*., ¶ 85(B).

[250] *American Manufacturing & Trading Inc v. The Republic of Zaire* (ICSID Case No ARB/93/1), Award, 21 February 1997, **Exhibit CL-15**, ¶ 6.05.

removed the "agreed and approved [legal] security and protection of the foreign investor's investment".[251]

200. Similarly, in *Azurix v. Argentina* the tribunal explained:

> [F]ull protection and security was understood to go beyond protection and security ensured by the police. It is not only a matter of physical security; the stability afforded by a secure investment environment is as important from an investor's point of view."[252]

201. Thus, pursuant to the full protection and security obligation, Bolivia was required actively to protect the Claimants' investments. This duty involved, in particular, and at the very least, the application of the legal, regulatory and contractual framework that it had established specifically to ensure the viability and legal and economic protection and security of the Claimants' investments.

202. Bolivia did exactly the opposite. It acted in disregard of the protection and security of the Claimants' investment when it dismantled the scheme for the determination of the spot price.

203. As explained above, up to 2008, the spot price was to be determined by taking into account all power generation units, including those less efficient which used liquid fuels. This induced power generators to invest to increase efficiency, since that efficiency would be remunerated with the higher spot price determined through the less efficient units.

204. In 2008, after GAI and Rurelec had invested in Guaracachi, and Guaracachi had increased its efficiency significantly and was continuing to do so, Bolivia changed

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[251] *CME Czech Republic BV v. The Czech Republic* (UNCITRAL), Partial Award, 13 September 2001, **Exhibit CL-74**, ¶ 613. In the parallel *Ronald S. Lauder v. Czech Republic* (UNCITRAL) Final Award, 3 September 2001, **Exhibit CL-23**, ¶ 308, the tribunal held: "[T]he treaty obliges the parties to exercise such due diligence in the protection of foreign investment as reasonable under the circumstances".

[252] *Azurix Corp v. Argentine Republic* (ICSID Case No ARB/01/12), Award, 14 July 2006, **Exhibit CL-37**, ¶ 408.

the rules. It decided to exclude the less efficient units from the formation of the spot price, artificially reducing the price of energy and taking away a substantial part of the remuneration to which Guaracachi was entitled to.

205. Bolivia thus deprived GAI and Rurelec from the existing protection and security offered by the spot price formation system, in breach of the Treaties.

3. Bolivia impaired the Claimants' investment by unreasonable measures

206. The Treaties provide that the State Parties shall not impair investments by unreasonable measures. According to Article II.3(b) of the US Treaty:

> Neither Party shall in any way impair by unreasonable and discriminatory measures the management, conduct operation, and sale or other disposition of covered investments.

207. Article 2(2) of the UK Treaty provides:

> Neither Party shall, in any way, impair by unreasonable or discriminatory measures the management, maintenance, use, enjoyment or disposal of investments in its territory of nationals or companies of the other Contracting Party.

208. As with fair and equitable treatment, the standard of reasonableness of State conduct imposed under BITs is flexible and broad, to be determined in light of all the circumstances of the case. In the words of the tribunal in *CME v. Czech Republic*:

> As with the fair and equitable standard, the determination of reasonableness is in its essence a matter for the arbitrator's judgment. That judgment must be exercised within the context of asking what the parties to bilateral investment treaties should jointly anticipate, in advance of a challenged action, to be appropriate behaviour in light of the goals of the Treaty.[253]

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[253] *CME Czech Republic B.V. v. Czech Republic* (UNCITRAL), Partial Award, 13 September 2001, **Exhibit CL-74**, ¶ 158.

209. The analysis presented above regarding the fair and equitable treatment and full protection and security standards applies equally here. Bolivia cannot be said to have acted reasonably when it altered a key aspect of the investment legal framework such as the scheme for the determination of the spot price to the detriment of the Claimants. As in the cases cited above, this is not behavior that the State Parties to the Treaties could have anticipated or expected in light of the provisions and goals of the Treaties to promote and protect investments.

C. BOLIVIA DID NOT PROVIDE EFFECTIVE MEANS OF ASSERTING CLAIMS AND ENFORCING RIGHTS WITH RESPECT TO CAPACITY PAYMENTS

210. Article II.4 of the US Treaty provides:

> Each Party shall provide effective means of asserting claims and enforcing rights with respect to covered investments.

211. The UK Treaty does not contain this "effective means" protection. However, such clause can be imported into the UK Treaty from the US Treaty by way of the most-favoured-nation (***MFN***) provision of Article 3 of the UK Treaty. According to this clause:

> (1) Neither Party shall in its territory subject investments or returns of nationals or companies of the other Contracting Party to treatment less favourable than that which it accords to investments or returns of its own nationals or companies or to investment or returns of nationals or companies of any third State.
>
> (2) Neither Party shall in its territory subject nationals or companies of the other Contracting Party, as regards their management, use, enjoyment or disposal or their investments, to treatment less favourable than that which it accords to its own nationals or companies or to nationals or companies of any third State.

212. Pursuant to these MFN provisions, UK protected investors can have access to the better treatment provided for by Bolivia to US protected investors, including the

protection offered by Article II.4 of the US Treaty which the UK Treaty does not explicitly provide.

213. The tribunal in the recent award in *White Industries v. India* upheld the applicability of a BIT's MFN clause in similar circumstances. The applicable BIT did not contain an effective means of protection clause, and the tribunal allowed the importation of such a protection from another BIT concluded by India.[254] The tribunal found that an investor "availing itself of the right to rely on more favourable substantive provisions in the third-party treaty," such as the effective means provision, "achieves exactly the result which the parties intended by the incorporation in the BIT of an MFN clause."[255]

214. As to the substance of the effective means clause, the tribunal held, *inter alia*, that the relevant standard requires the host State's legal and court system to "work effectively in any given case", and that "undue delay in the host State's courts dealing with an investor's 'claim' may amount to a breach of the effective means standard."[256] The tribunal added that "a claimant alleging a breach of the effective means standard does not need to establish that the host State interfered in judicial proceedings to establish a breach", and that "regular and extensive delays" in the court system generally is no defence. Rather, "this may be evidence of a systemic problem with the court system, which would also constitute a breach of the effective means standard."[257]

215. Similarly, in *Chevron v. Ecuador*, the tribunal found that undue delays in court proceedings constituted a breach of the effective means provision of the relevant BIT:

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[254] *White Industries Australia Limited v. The Republic of India* (UNCITRAL), Final Award, 30 November 2011, **Exhibit CL-73**.

[255] *Id*., ¶¶ 11.2.3, 11.2.4.

[256] *Id*., ¶¶ 11.3.2 (b) and (d).

[257] *Id*., ¶¶ 11.3.2 (c) and (e).

> For any "means" of asserting claims or enforcing rights to be effective, it must not be subject to indefinite or undue delay. Undue delay in effect amounts to a denial of access to those means. The Tribunal therefore finds that Article II(7) [the effective means provision of the BIT] applies to the Claimants' claims for undue delay in their seven cases in the Ecuadorian courts. The Ecuadorian legal system must thus, according to Article II(7), provide foreign investors with means of enforcing legitimate rights within a reasonable amount of time.[258]

216. As explained above,[259] in the case at hand Guaracachi has experienced significant and unjustified delays in its appeals against Resolution SSDE No. 040, which detrimentally altered the manner in which capacity prices were calculated.[260]

217. Guaracachi first challenged Resolution 040 in early 2007. After a number of appeals, Guaracachi filed an appeal before the Supreme Court of Bolivia in April 2008. Almost four years later, this challenge remains pending.

218. Guaracachi also challenged the procedural aspects of Resolution 040, implemented through Resolution CNDC 209/2007-1. This challenge began in 2007. After significant delays in adjudication, Guaracachi filed an appeal before the Supreme Court of Bolivia in June 2008. As with the appeal of Resolution 040, Guaracachi's procedural appeal Resolution CNDC 209/2007-1 has remained pending before the Supreme Court for more than three and a half years.

219. It follows that the Bolivian court system has not worked effectively with regard to Guaracachi's claims, and has resulted in unacceptable and unjustified delays. For four years, Guaracachi has waited for a decision of the Supreme Court on a matter of crucial importance for its operations, as capacity prices are a key aspect of the remuneration of Guaracachi's investments. In the event that this challenge were to be successful, the Claimants would be entitled to receive the value of its

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[258] *Chevron Corporation and Texaco Petroleum Company v. The Republic of Ecuador* (UNCITRAL), Partial Award on the Merits, 30 March 2010, **Exhibit CL-66**, ¶ 250.

[259] *See* paragraphs 89-94 above.

[260] Resolution SSDE No. 040/2007, 8 February 2007, **Exhibit C-129**.

business as of the date of expropriation calculated with the additional cash flows unaffected by the unlawful reduction in capacity payments.

220. On this basis, the Bolivian judiciary's inefficiencies and delays in dealing with Guaracachi's challenges against Resolutions 040 and CNDC 209/2007-1 constitute a failure by Bolivia to provide effective means of asserting claims and enforcing rights with respect to GAI and Rurelec's investments, in breach of the Treaties.

V. GAI AND RURELEC ARE ENTITLED TO COMPENSATION

A. OVERVIEW OF THE CLAIM FOR DAMAGES

221. To the extent that the Tribunal determines that Bolivia has breached the Treaties, GAI and Rurelec are entitled to compensation for the harm caused by the wrongful conduct to their investments in Guaracachi.

222. Under international law, a state that carries out an internationally wrongful act is obliged to make full reparation for the harm caused thereby.[261] As described in Chapter IV above, Bolivia violated UK and US Treaty provisions prohibiting uncompensated expropriation, requiring fair and equitable treatment, guaranteeing full protection and security, and ensuring access to effective means to secure investor rights. These Treaty breaches caused direct and substantial harm to GAI and Rurelec's investments.

223. As explained below, GAI and Rurelec are entitled to full reparation for these losses through compensation sufficient to restore GAI and Rurelec to the position they would have occupied in the absence of Bolivia's treaty breaches.[262] Bolivia's breaches have together caused financial harm to the

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[261] International Law Commission, "Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries", 2001, **Exhibit CL-21**, Article 31.

[262] *See Factory at Chorzów* (Merits), PCIJ Series A No 17, 1928, **Exhibit CL-2**, p. 47.

Claimants currently estimated at no less than US$142.3 million, as at 29 February 2012.

224. GAI and Rurelec's claim for damages is explained and quantified in the Compass Lexecon Report submitted with this Memorial by Dr Manuel Abdala. In this report, Dr Abdala separately calculates the damages resulting from each of the Measures, using consistently reasonable assumptions in the "actual" and "but-for" scenarios to isolate the impact of Bolivia's Treaty breaches on the Claimants' investments. He calculates the damage resulting from the Nationalization Measure using discounted cash flow (***DCF***) methodology, and quantifies the losses inflicted on the Claimants by the Capacity Price and Spot Price by identifying lost cash flows (both historical and projected) and "actualizing" them at the appropriate rate of interest. Rurelec's additional claim for the two Worthington engines nationalized by Bolivia is outside the scope of Dr Abdala's valuation of Guaracachi and the losses it suffered, and is calculated separately.

225. In the sections below, the Claimants explain the basis for their entitlement to compensation and the resulting calculations, reflected in the Compass Lexecon Report. Section B sets out the basic principles and methodology to be applied to the determination of quantum in this case; Section C addresses the compensation requested in respect of the Nationalization Measure; Section D deals with the discrete compensation requested by Rurelec for the nationalization of the two Worthington engines; Section E outlines the requested compensation for the Pre-Nationalization Measures; and Section F summarizes the damages claimed.

226. For the purposes of this section the measures taken by Bolivia are defined as follows: the nationalization of the Claimants 50.001% share in Guaracachi by Supreme Decree No. 0493 (the ***Nationalization Measure***); the damages related to changes in the spot energy price due to formation rules enacted in August 2008 (the ***Spot Price Measure***); and damages related to Bolivia's failure to provide effective means of asserting claims and enforcing rights with respect to a

reduction in the value of capacity payments since May 2007 (the ***Capacity Price Measure***).

B. THE APPLICABLE PRINCIPLES AND METHODOLOGY

1. Full compensation is the appropriate standard of reparation

227. A state responsible for an internationally wrongful act must make "full reparation for the injury caused by [its] internationally wrongful act."[263] Reparation may take the form of restitution, compensation or satisfaction, either singly or in combination.[264] Here, restitution in kind is neither possible nor practical.[265] Therefore, compensation is the appropriate remedy, sufficient to efface the consequences of Bolivia's breaches of the Treaties.

228. The Treaties specify a particular legal regime with respect to compensation for expropriation.[266] Despite their slight variation in terms, both Treaties expressly incorporate the salient elements of customary international law and the "Hull Formula" of prompt, adequate and effective compensation for expropriation, reflecting the fair market value lost as a result of government action.[267] However, as no compensation has been paid, and the expropriation is thus unlawful, these provisions are inapplicable in the present context. The appropriate standard is that applied by customary international law, namely full compensation.

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263 International Law Commission, "Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries", 2001, **Exhibit CL-21**, Article 31(1).

264 International Law Commission, "Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries", 2001, **Exhibit CL-21**, Article 34.

265 *See, e.g.*, *CMS Gas Transmission Company v. The Republic of Argentina* (ICSID Case No. ARB/01/8), Award, 12 May 2005, **Exhibit CL-35**, ¶ 406.

266 *See* US Treaty, Article III(2); UK Treaty, Article 5(1).

267 *See CME Czech Republic BV v. The Czech Republic* (UNCITRAL), Final Award, 14 March 2003, **Exhibit CL-27**, ¶ 497.

229. According to the landmark *Chorzów Factory* decision of the Permanent Court of International Justice,[268] frequently cited by investment treaty tribunals,[269] an award of compensation should be designed to "wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed". This obligation is reflected in the International Law Commission's Articles on State Responsibility,[270] where it is characterized as "an obligation to compensate for the damage caused", which "shall cover any financially assessable damage including loss of profits insofar as it is established".[271]

2. Fair market value

230. Full compensation for harm caused by an international delict is normally assessed on the basis of the resulting diminution in "fair market value" of the affected

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268 *Factory at Chorzów* (Merits), PCIJ Series A No 17, 1928, **Exhibit CL-2**, p. 47.

269 *See CMS Gas Transmission Company v. The Republic of Argentina* (ICSID Case No. ARB/01/8), Award, 12 May 2005, **Exhibit CL-35**, ¶ 400. For examples of more recent cases, *see*: *Sempra Energy International v. Argentine Republic* (ICSID Case No ARB/02/16), Award, 28 September 2007, **Exhibit CL-46**, ¶ 400; *Compañía de Aguas del Aconquija S.A. and Vivendi Universal (formerly Compagnie Générale des Eaux) v. Argentine Republic* (ICSID Case No. ARB/97/3), Decision on Annulment, 3 July 2002, **Exhibit CL-26**, ¶¶ 8.2.4-8.2.5; *Duke Energy Electroquil Partners & Electroquil S.A. v. Republic of Ecuador* (ICSID Case No ARB/04/19), Award, 18 August 2008, **Exhibit CL-53**, ¶ 468; *Biwater Gauff (Tanzania) Limited v. United Republic of Tanzania* (ICSID Case No ARB/05/22), Award, 24 July 2008, **Exhibit CL-51**, ¶¶ 776-777; *National Grid PLC v. Argentine Republic* (UNCITRAL), Award, 3 November 2008, **Exhibit CL-55**, ¶ 270; *Impregilo SpA v. Argentine Republic* (ICSID Case No ARB/07/17), Award, 21 June 2011, **Exhibit CL-71**, ¶ 361; *El Paso Energy International Company v. Argentine Republic* (ICSID Case No ARB/03/15), Award, 31 October 2011, **Exhibit CL-72**, ¶ 700.

270 The International Law Commission's Articles on State Responsibility, and in particular Article 36, have frequently been invoked in investment treaty decisions in relation to compensation issues. *See, e.g., Siemens A.G. v. The Argentine Republic* (ICSID Case No ARB/02/8), Award, 6 February 2007, **Exhibit CL-41**, ¶ 352; *Compañía de Aguas del Aconquija S.A. and Vivendi Universal (formerly Compagnie Générale des Eaux) v. Argentine Republic* (ICSID Case No. ARB/97/3), Decision on Annulment, 3 July 2002, **Exhibit CL-26**, ¶ 8.2.6; *ADM v. United Mexican States* (ICSID Case No ARB(AF)/04/5), Award, 21 November 2007, **Exhibit CL-47**, ¶¶ 280-281; *Gemplus SA v. United Mexican States* (ICSID Case No ARB(AF)/04/3 & ARB(AF)/04/4), Award, 16 June 2010, **Exhibit CL-67**, ¶¶ 13.79-13.81; *Joseph Charles Lemire v. Ukraine* (ICSID Case No. ARB/06/18), Decision on Jurisdiction and Liability, 28 March 2011, **Exhibit CL-70**, ¶¶ 151, 245; *El Paso Energy International Company v. Argentine Republic* (ICSID Case No ARB/03/15), Award, 31 October 2011, **Exhibit CL-72**, ¶ 710.

271 International Law Commission, "Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries", 2001, **Exhibit CL-21**, Article 36.

asset.[272] The 1992 World Bank Guidelines on the Treatment of Foreign Direct Investment are clear in this regard, providing that compensation for expropriation "will be deemed 'adequate' if it is based on the fair market value of the taken asset".[273] The Iran-US Claims Tribunal defined fair market value as "the price that a willing buyer would buy given goods at and the price at which a willing seller would sell it at on condition that none of the two parties [is] under any kind of duress and that both parties have good information about all relevant circumstances involved in the purchase."[274] This assessment should be conducted as of the date on which the deprivation of rights occurred or crystallized.[275] Where the investment is a "going concern",[276] this assessment must take future profitability into consideration in order to provide full compensation, because this is how market participants estimate the value of such businesses.[277] International tribunals have regularly applied the fair market value

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[272] J. Crawford, THE INTERNATIONAL LAW COMMISSION'S ARTICLES ON STATE RESPONSIBILITY: INTRODUCTION, TEXT AND COMMENTARIES, Cambridge: Cambridge University Press, 2002, **Exhibit CL-24**, p. 225 ("Compensation reflecting the capital value of property taken or destroyed as the result of an internationally wrongful act is generally assessed on the basis of the 'fair market value' of the property lost").

[273] The World Bank Group, "Guidelines on the Treatment of Foreign Direct Investment" reprinted in (1992) 7 *ICSID Rev–FILJ* 295, **Exhibit CL-13**, p. 303.

[274] *Starrett Housing Corp. v. Government of the Islamic Republic of Iran*, (1987) 16 IUSCTR 112, Award, 14 August 1987, **Exhibit CL-7**, ¶¶ 18, 27, and 274.

[275] *Compañiá del Desarrollo de Santa Elena SA v. Republic of Costa Rica* (ICSID Case No. ARB/96/1), Award, 17 February 2000, **Exhibit CL-19**, ¶ 78.

[276] For a definition of a "going concern", *see* The World Bank Group, "Guidelines on the Treatment of Foreign Direct Investment" reprinted in (1992) 7 *ICSID Rev–FILJ* 295, **Exhibit CL-13**, p. 304: "[A]n enterprise consisting of income-producing assets which has been in operation for a sufficient period of time to generate the data required for the calculation of future income and which could have been expected with reasonable certainty, if the taking had not occurred, to continue producing legitimate income over the course of its economic life in the general circumstances following the taking by the State."

[277] *CMS Gas Transmission Company v. The Republic of Argentina* (ICSID Case No. ARB/01/8), Award, 12 May 2005, **Exhibit CL-35**, ¶ 402; *Compañía de Aguas del Aconquija S.A. and Vivendi Universal (formerly Compagnie Générale des Eaux) v. Argentine Republic* (ICSID Case No. ARB/97/3), Decision on Annulment, 3 July 2002, **Exhibit CL-26**, ¶ 8.3.3.

standard in cases involving both breaches of the fair and equitable treatment[278] and expropriation[279] clauses of bilateral investment treaties.

231. The Treaties both reflect the "fair market value" principle operating in general international law in the specific guidance they offer for the calculation of compensation for a lawful expropriation. Article III(2) of the US Treaty specifies that compensation must be "equivalent to the fair market value of the expropriated investment immediately before the expropriatory action was taken", whereas Article 5(1) of the UK Treaty refers to compensation amounting to "the market value of the investment expropriated immediately before the expropriation".[280]

3. The DCF Method

232. As described in detail above,[281] Bolivia completely expropriated GAI and Rurelec's 50.001% stake in Guaracachi through the Nationalization Measure. No compensation was provided. In accordance with the Treaties and with customary international law, Bolivia is therefore obliged to compensate GAI and Rurelec on the basis of the fair market value of Guaracachi at the date of the Treaty breaches. The fair market value assessment of Guaracachi must include an assessment of future profit-making potential, given that it was an enterprise with income-producing assets and thus a "going concern".

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278 *See, e.g., CMS Gas Transmission Company v. The Republic of Argentina* (ICSID Case No. ARB/01/8), Award, 12 May 2005, **Exhibit CL-35**, ¶ 410; *Azurix Corp v. Argentine Republic* (ICSID Case No. ARB/01/12), Award, 14 July 2006, **Exhibit CL-37**, ¶ 424; *Enron Corporation v. Argentine Republic* (ICSID Case No. ARB/01/3), Award, 22 May 2007, **Exhibit CL-42**, ¶¶ 359-363; *Sempra Energy International v. Argentine Republic* (ICSID Case No ARB/02/16), Award, 28 September 2007, **Exhibit CL-46**, ¶¶ 403, 404; *El Paso Energy International Company v. Argentine Republic* (ICSID Case No. ARB/03/15), Award, 31 October 2011, **Exhibit CL-72**, ¶ 703.

279 *See, e.g., Metalclad Corporation v. United Mexican States* (ICSID Case No ARB(AF)/97/1), Award, 30 August 2000, **Exhibit CL-20**, ¶ 118; *CME Czech Republic BV v. The Czech Republic* (UNCITRAL), Final Award, 14 March 2003, **Exhibit CL-27**, ¶¶ 496-499; *Funnekotter & Ors v. Republic of Zimbabwe* (ICSID Case No ARB/05/6), Award, 22 April 2009, **Exhibit CL-61**, ¶ 124.

280 The reference to "market value" should be considered equivalent to "fair market value". *See CME Czech Republic BV v. The Czech Republic* (UNCITRAL), Final Award, 14 March 2003, **Exhibit CL-27**, ¶ 493.

281 *See* paragraphs 98-113 above.

233. The most appropriate way to determine the fair market value of a going concern is the DCF method. Favored in both international finance and international law,[282] the DCF method projects the future cash flows that an asset would have generated for equity-holders in the absence of wrongful government conduct, and then discounts them back to the valuation date at a rate that accounts for the risk associated with those cash flows.[283] In this way, the DCF methodology simulates the transaction price at which willing buyers and sellers in the marketplace would transfer an equity stake in the company to be valued. The DCF method has been widely endorsed and applied by international arbitral tribunals to determine the appropriate compensation due as a result of expropriation, as well as other breaches of investment treaties.[284]

234. In order to reflect the *Chorzów Factory* "full compensation" principle, the valuer normally creates *two* DCF models, one projecting future cash flows assuming the offending measures are in place (the "actual" scenario), and one assuming that the government had never breached the treaty (the "but-for" scenario). The difference in the value of the claimant's equity interest in company in the "but-

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[282] *See, e.g.,* The World Bank Group, "Guidelines on the Treatment of Foreign Direct Investment" reprinted in (1992) 7 *ICSID Rev–FILJ* 295, **Exhibit CL-13**, pp. 303-304; Rubins, N. and N. S. Kinsella, INTERNATIONAL INVESTMENT, POLITICAL RISK, AND DISPUTE RESOLUTION: A PRACTITIONER'S GUIDE (New York: Oxford University Press), 2005, **Exhibit CL-33**, pp. 247-248; Friedland, P. and E. Wong, "Measuring Damages for the Deprivation of Income-Producing Assets: ICSID Case Studies" (1991) 6 *ICSID Rev–FILJ* 400, **Exhibit CL-11**, p. 407; Lieblich, W. "Determinations by International Tribunals of the Economic Value of Expropriated Enterprises," (1990) 7 *Journal of International Arbitration* 37, **Exhibit CL-9**, p. 38.

[283] The World Bank Group, "Guidelines on the Treatment of Foreign Direct Investment" reprinted in (1992) 7 *ICSID Rev–FILJ* 295, **Exhibit CL-13**, p. 304 (defining DCF as "the cash receipts realistically expected from the enterprise in each future year of its economic life as reasonably projected minus that year's expected cash expenditure, after discounting this net cash flow for each year by a factor which reflects the time value of money, expected inflation, and the risk associated with such cash flow under realistic circumstances").

[284] *See, e.g., CMS Gas Transmission Company v. The Republic of Argentina (ICSID Case No. ARB/01/8*), Award, 12 May 2005, **Exhibit CL-35**, ¶¶ 411-417; *Enron Corporation v. Argentine Republic* (ICSID Case No ARB/01/3), Award, 22 May 2007, **Exhibit CL-42**, ¶ 385; *Biwater Gauff (Tanzania) Limited v. United Republic of Tanzania* (ICSID Case No ARB/05/22), Award, 24 July 2008, **Exhibit CL-51**, ¶ 793; *National Grid PLC v. Argentine Republic* (UNCITRAL), Award, 3 November 2008, **Exhibit CL-55**, ¶ 275; *Joseph Charles Lemire v. Ukraine* (ICSID Case No. ARB/06/18), Decision on Jurisdiction and Liability, 28 March 2011, **Exhibit CL-70**, ¶ 254.

for" and "actual" scenarios then provides the primary measure of damages. In the present case, the full nationalization of the Claimants' equity stake means that the "actual" value of the investment from 1 May 2010 is nil. Accordingly, Dr Abdala constructed one scenario, representing the value of the Claimants' investment in Guaracachi in the absence of nationalization – but holding all other variables constant with the actual scenario.[285]

235. The discount rate most frequently adopted is the weighted average cost of capital (***WACC***), i.e. the average at market value of all financing sources (cost of debt, equity and ratio debt/equity) in the going concern's capital structure. The WACC is carefully constructed to reflect the risk that future cash flows will not materialize as projected.

236. For the reasons set out above, the DCF method is the appropriate method to assess the fair market value of Guaracachi immediately prior to its expropriation through the Nationalization Measure, and thereby to determine the amount of compensation due to GAI and Rurelec in relation to their equity stake in the company. This methodology has been adopted by Dr Abdala in his quantification of the harm caused by the Nationalization Measure in the Compass Lexecon Report.

237. However, Dr Abdala's DCF model does not capture the losses suffered by GAI and Rurelec as a result of the Spot Price and Capacity Price Measures. The DCF analysis undertaken by Dr Abdala operates based upon the status quo at the date of nationalization, 1 May 2010.[286] The Spot Price and Capacity Price Measures were already in place at this time, causing damage to the Claimants since as early as May 2007. The market value of Guaracachi as of May 2010 therefore was already reduced by Bolivia's wrongful measures, and must be separately calculated based on the Claimants' discrete losses. In order to isolate the effects

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285 Compass Lexecon Report, ¶ 69.

286 Compass Lexecon Report, ¶ 65.

of each Treaty breach, Dr Abdala has calculated these discrete losses for the Pre-Nationalization Measures separately for the entire relevant period (from implementation of the relevant measure until the end of the Licenses). To avoid "double counting", Dr Abdala has constructed his DCF model for Guaracachi as of May 2010 assuming that the Pre-Nationalization Measures remain in place until the end of the valuation period.

4. Interest

238. Interest is an integral component of full compensation under customary international law.[287] A state's duty to make reparation arises immediately after its unlawful act causes harm; to the extent that payment is delayed, the claimant loses the opportunity to use the compensation to productive ends, in addition to losing its property or other rights.[288] The purpose of an award of interest is the same as that of an award of damages for breach of an international obligation: the interest awarded should place the claimant in the position that it would have occupied had the state not acted wrongfully. On this basis, interest is not an award in addition to reparation; rather, it is a component of, and should give effect to, the principle of full reparation. Thus, the requirement of full reparation must inform all aspects of an interest award, including the appropriate rate of interest, and whether interest should be simple or compound.[289] The provision of interest encompasses

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287 International Law Commission, "Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries", 2001, **Exhibit CL-21**, Article 38; *Siemens A.G. v. The Argentine Republic* (ICSID Case No ARB/02/8), Award, 6 February 2007, **Exhibit CL-41**, ¶¶ 396-401; *LG&E Energy Corp. v. Argentine Republic* (ICSID Case No ARB/02/1), Award, 25 July 2007, **Exhibit CL-43**, ¶ 55; *Compañía de Aguas del Aconquija S.A. and Vivendi Universal (formerly Compagnie Générale des Eaux) v. Argentine Republic* (ICSID Case No. ARB/97/3), Decision on Annulment, 3 July 2002, **Exhibit CL-26**, ¶¶ 8.3.20, 9.2.1; *Continental Casualty Company v. Argentine Republic* (ICSID Case No ARB/03/9), Award, 5 September 2008, **Exhibit CL-54**, ¶ 308. Interest is also a requirement for a lawful expropriation under Article III(3) of the US Treaty and Article 5(1) of the UK Treaty.

288 *Metalclad Corporation v. United Mexican States* (ICSID Case No ARB(AF)/97/1), Award, 30 August 2000, **Exhibit CL-20**, ¶ 128.

289 International Law Commission, "Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries", 2001, **Exhibit CL-21**, Article 38.

both (i) pre-award interest and (ii) post-award interest. Each type of interest is addressed in turn.

a. Pre-award interest

239. GAI and Rurelec are entitled to pre-award interest on all compensation awarded for the Nationalization Measure, as well as for the discrete compensation requested by Rurelec for the nationalization of two Worthington engines. This interest accrues from the valuation date (1 May 2010) until the date of the Award.[290] The application of interest from the date of valuation is based on the fact that the state's duty to make reparation arises immediately after its unlawful act causes harm. Interest thus accrues from the date of the unlawful act until the date of the award.[291]

(i) Rate of interest

240. For the Nationalization Measure, GAI and Rurelec should be awarded interest for the losses arising from the date they occurred until the date of the Tribunal's Award, accruing at a rate reflecting Guaracachi's average WACC. Using the WACC is appropriate as it compensates GAI and Rurelec for the lost opportunity to re-invest the funds of which they have been deprived as a consequence of the breaches of the Treaties, that is, the deprivation of the opportunity cost of capital. Otherwise stated, the cash flows that Guaracachi lost as a result of the treaty breaches would have been subject to the risk of its business activities, because those cash flows could have been used in those activities. Using an interest rate equivalent to the WACC thus ensures that full reparation is made by Bolivia. To

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290 As the discrete damages for the Capacity and Spot Price Measures are calculated as at the date of the Compass Lexecon Report (as a proxy for the date of the Tribunal's Award), pre-award interest is not applicable to these claims.

291 *See, e.g.*, *Asian Agricultural Products Ltd v. Sri Lanka* (ICSID Case No. ARB/87/3), Final Award, 27 June 1990, **Exhibit CL-10**, ¶ 114; *LG&E Energy Corp. v. Argentine Republic* (ICSID Case No ARB/02/1), Award, 25 July 2007, **Exhibit CL-43**, ¶¶ 104-105; *BG Group Plc. v. The Republic of Argentina* (UNCITRAL), Final Award, 24 December 2007, **Exhibit CL-48**, ¶ 457; *Gemplus SA v. United Mexican States* (ICSID Case No ARB(AF)/04/3 & ARB(AF)/04/4), Award, 16 June 2010, **Exhibit CL-67**, ¶ 16.21.

apply a risk-free rate of interest would be to assume that GAI and Rurelec would have invested their resources in risk-free instruments, such as US Government bonds. This does not reflect commercial reality. As in most capital-intensive businesses, net income is either distributed to shareholders as dividends or to bondholders as debt payments (and is therefore subject to the applicable cost of equity or debt) or re-invested in the company's normal activities (and is therefore subject to the WACC).

241. The appropriateness of the WACC as a rate of interest has been recognized by investment treaty tribunals and leading academic commentators. Professor John Gotanda, a respected expert on valuation and international law, has emphasized that multinational enterprises usually invest in projects carrying significantly greater risk and corresponding reward than risk-free rates, and that awarding compound interest at the claimants' opportunity cost is wholly appropriate.[292] Adapting to this commercial reality, investment tribunals have increasingly recognized that interest should be calculated using rates that reflect the claimant's cost of capital.[293] In *Vivendi v Argentina*, the tribunal confirmed the rationale underlying this approach, noting that "[t]he object of an award of interest is to compensate the damage resulting from the fact that, during the period of non-payment by the debtor, the creditor is deprived of the use and disposition of that

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[292] Gotanda, *A Study of Interest* (ICC Publication, 2008), **Exhibit CL-44**, p. 188 ("Awarding compound interest at the claimant's opportunity cost would be the most appropriate way to compensate it for the loss of the use of its money"). *See also* Bienvenu, P. and M.J. Valasek, "Compensation for Unlawful Expropriation, and Other Recent Manifestations of the Principle of Full Reparation in International Investment Law" in Albert Jan van den Berg (ed), *50 Years of the New York Convention: ICCA International Arbitration Conference*, ICCA Congress Series, Volume 14 (2009) 231, **Exhibit CL-60**, p. 261.

[293] *See, e.g., Compañía de Aguas del Aconquija S.A. and Vivendi Universal (formerly Compagnie Générale des Eaux) v. Argentine Republic* (ICSID Case No. ARB/97/3), Decision on Annulment, 3 July 2002, **Exhibit CL-26**, ¶ 9.2.8; *Alpha Projektholding GmbH v. Ukraine* (ICSID Case No ARB/07/16), Award, 8 November 2010, **Exhibit CL-68**, ¶¶ 514, 518. *See also France Telecom v. Lebanon* (UNCITRAL), Award, 31 January 2005, **Exhibit CL-34**, ¶ 209; *Funnekotter & Ors v. Republic of Zimbabwe*, ICSID Case No ARB/05/6, Award, 22 April 2009, **Exhibit CL-61**, ¶¶ 143-146.

sum he was supposed to receive."[294] The tribunal in *Vivendi v Argentina* ultimately awarded pre-award interest based primarily on the claimant's cost of capital, noting that the proper rate should be "a reasonable proxy for the return the Claimants could otherwise have earned on the amounts invested and lost in the … concession."[295] Similarly, the tribunal in *France Telecom v Lebanon* estimated at "10% per year the rate of reasonable profitability of capital of which the Operator was deprived," and applied this rate as pre-judgment interest.[296]

242. Most recently, in *Alpha Projektholding v Ukraine*, the tribunal calculated pre-award interest on the basis of the "risk-free rate plus the market risk premium," for a total interest rate of 9.11%, on the basis that "this rate better reflects the opportunity cost associated with Claimant's losses, adjusted for the risks of investing in Ukraine."[297] Thus, the *Alpha Projektholding* tribunal adopted a pre-award interest rate based upon the relevant cost of equity,[298] recognizing that a risk-free rate would under-compensate the claimant.

243. In line with this authority, GAI and Rurelec request pre-award interest for their losses at 10.63%, a rate equal to the average WACC for Guaracachi, as set forth in the Compass Lexecon Report.[299] Only in this way can the Tribunal fully compensate GAI and Rurelec for the losses they sustained as a result of the Nationalization Measure.

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[294] *Compañía de Aguas del Aconquija S.A. and Vivendi Universal (formerly Compagnie Générale des Eaux) v. Argentine Republic* (ICSID Case No. ARB/97/3), Decision on Annulment, 3 July 2002, **Exhibit CL-26**, ¶ 9.2.8.

[295] *Compañía de Aguas del Aconquija S.A. and Vivendi Universal (formerly Compagnie Générale des Eaux) v. Argentine Republic* (ICSID Case No. ARB/97/3), Decision on Annulment, 3 July 2002, **Exhibit CL-26**, ¶ 9.2.7. The *Vivendi* tribunal applied a rate of 6%, as it was not persuaded that the claimants would have earned their proposed rate of 9.7%.

[296] *France Telecom v. Lebanon* (UNCITRAL), Award, 31 January 2005, **Exhibit CL-34**, ¶ 209.

[297] *Alpha Projektholding GmbH v. Ukraine* (ICSID Case No ARB/07/16), Award, 8 November 2010, **Exhibit CL-68**, ¶¶ 514, 518. Similarly, in *Funnekotter v. Zimbabwe*, the tribunal used a 10% rate of interest "based on the LIBOR rate plus a political risk."

[298] For developed countries, the cost of equity is the risk-free rate plus market premium. In emerging markets, a country risk premium is also added.

[299] *See* Compass Lexecon Report, ¶¶ 93-96 and Appendix B.

(ii) Compounding of interest

244. Pre-award interest should accrue with compounding, in accordance with standard practice. Tribunals have frequently considered that compound interest best gives effect to the rule of full reparation.[300] Compound interest ensures that a respondent state is not given a windfall as a result of its breach, as compounding recognizes the time value of the claimant's losses.[301] It also "reflects economic reality in modern times" where "the time value of money in free market economies is measured in compound interest".[302] On this basis, all pre-award interest awarded to GAI and Rurelec should be subject to reasonable compounding. The appropriate periodicity of the compounding is annual, since the WACC is calculated on the basis of annual expected returns.

b. Post-award interest

245. To the extent that Bolivia does not immediately satisfy an eventual damages award issued by this Tribunal, GAI and Rurelec are entitled to interest accruing from the date of the Tribunal's Award until such time as payment is made in full. This category of interest, which is "intended to compensate additional loss incurred from the date of the award to the date of final payment",[303] must be

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[300] *See, e.g., Azurix Corp v. Argentine Republic* (ICSID Case No ARB/01/12), Award, 14 July 2006, **Exhibit CL-37**, ¶ 440; *Pey Casado v. Republic of Chile* (ICSID Case No 98/2), Award, 8 May 2008, **Exhibit CL-50**, ¶¶ 709, 712; *Continental Casualty Company v. Argentine Republic* (ICSID Case No ARB/03/9), Award, 5 September 2008, **Exhibit CL-54**, ¶¶ 308-313; *National Grid PLC v. Argentine Republic* (UNCITRAL), Award, 3 November 2008, **Exhibit CL-55**, ¶ 294; *Funnekotter & Ors v. Republic of Zimbabwe* (ICSID Case No ARB/05/6), Award, 22 April 2009, **Exhibit CL-61**, ¶ 146; *Waguih Elie George Siag and Clorinda Vecchi v. The Arab Republic of Egypt* (ICSID Case No. ARB/05/15), Award, 1 June 2009, **Exhibit CL-62**, ¶¶ 595-598; *Alpha Projektholding GmbH v. Ukraine* (ICSID Case No ARB/07/16), Award, 8 November 2010, **Exhibit CL-68**, ¶ 514; *Impregilo SpA v. Argentine Republic* (ICSID Case No ARB/07/17), Award, 21 June 2011, **Exhibit CL-71**, ¶ 382; *El Paso Energy International Company v. Argentine Republic* (ICSID Case No ARB/03/15), Award, 31 October 2011, **Exhibit CL-72**, ¶ 746.

[301] Sénéchal, T. and J. Gotanda, "Interest as Damages" (2008-2009) 47 *Columbia JTL* 491, **Exhibit CL-58**, p. 532.

[302] *Continental Casualty Company v. Argentine Republic* (ICSID Case No ARB/03/9), Award, 5 September 2008, **Exhibit CL-54**, ¶¶ 308-309.

[303] *Autopista Concesionada de Venezuela, CA v. Bolivarian Republic of Venezuela* (ICSID Case No ARB/00/5), Award, 23 September 2003, **Exhibit CL-29**, ¶ 380.

sufficient to deter potential delay in the payment of the amount specified in an award. It is thus an essential part of any damages award. For the reasons outlined above, it is appropriate to award compound interest equivalent to the average WACC for Guaracachi.

C. GAI and Rurelec Are Entitled To The Fair Market Value Of Their Expropriated Investment in Guaracachi

246. As described in Chapter IV above, the Nationalization Measure implemented by Bolivia constituted a direct expropriation of GAI and Rurelec's 50.001% shareholding in Guaracachi, in violation of the Treaties. Consequently, GAI and Rurelec are entitled to full compensation for the loss in fair market value of their shares in Guaracachi arising from the Nationalization Measure, which is most effectively calculated using the DCF method.

1. Date of valuation

247. The appropriate valuation date for determining the fair market value of the Claimants' investments in Guaracachi is 1 May 2010. As discussed above,[304] a fair market valuation is typically conducted as of the date on which the expropriatory act occurred.[305] Although not directly applicable in a case of an international law violation, the expropriation clauses of the Treaties also refer to the assessment of the fair market value "immediately before" the expropriation.[306] As the Nationalization Decree ordering the nationalization of 100% of Guaracachi America's shareholding in Guaracachi was issued on 1 May 2010, and the forcible takeover occurred on that same date, it must be understood as the date on which the deprivation occurred. 1 May 2010 is therefore the relevant date for the valuation of GAI and Rurelec's investments.

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304 *See* paragraph 230 above.

305 *See Compañiá del Desarrollo de Santa Elena SA v. Republic of Costa Rica* (ICSID Case No. ARB/96/1), Award, 17 February 2000, **Exhibit CL-19**, ¶ 78.

306 US Treaty, Article III(2); UK Treaty, Article 5(1).

2. Application of DCF method

248. Considering it to be the method most adapted to determining the fair market value of an asset,[307] Dr Abdala employs the DCF method to assess the full compensation due to GAI and Rurelec in relation to their equity stake in Guaracachi, and applies a secondary methodology (the "market multiple comparables approach") to confirm the reasonableness of his conclusions.[308] He uses a DCF model to assess the value of the company "but-for" the nationalization, isolating the effect of the Nationalization Measure on GAI and Rurelec's stake in that company and ensuring that the entire quantum of compensation requested is the causally proximate result of Bolivia's breaches of the Treaties. Dr Abdala calculates Guaracachi's fair market value as of 1 May 2010 based on its revenues and costs as they would have been, had the company not been expropriated. All other conditions are assumed to be as they actually are, and as they are reasonably projected to be, until the expiry of the Licenses in 2038. As explained above, this includes spot price and capacity payment revenues as dictated under the Spot Price Measure and Capacity Price Measure (with damages for these wrongful Government actions calculated separately). The value of the Claimants' equity share of Guaracachi that Dr Abdala derives in the "but-for" scenario, US$80.9 million,[309] represents the primary quantification of damages, since in the "actual" scenario the Claimants retain no value in relation to their investments.

249. In accordance with accepted principles of corporate finance, Dr Abdala has undertaken a DCF analysis by discounting projected cash flows to the valuation date at a rate equivalent to the WACC. The WACC quantifies the risks

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[307] Dr Abdala considered the Net Capital Contribution Approach, the Book Value Approach, the Transaction Approach, the Stock Market Approach, and the Event Study Valuation Approach, as alternatives to the DCF methodology. He rejected them as inappropriate methods of valuation for the reasons described in the Compass Lexecon Report, ¶¶ 53-57.

[308] *See* Compass Lexecon Report, ¶¶ 99-105.

[309] Compass Lexecon Report, ¶ 97.

associated with Guaracachi, on the basis of the rate of return that shareholders and lenders expect to receive on their capital investment.[310] This is a simulation of the analysis that would have been undertaken by willing buyers and willing sellers with a long-term investment perspective, consistent with the "fair market value" standard.

250. As Dr Abdala explains,[311] the WACC is comprised of three main components: (i) the cost of debt; (ii) the cost of equity; and (iii) the relative weight between debt and equity. Using these three components, the WACC takes into account the rate of return required by both shareholders and lenders, and thus captures the implicit risk associated with Guaracachi's expected future cash flows.

251. As described in detail in Appendix B to his Report, to calculate the cost of equity, Dr Abdala used the Capital Asset Pricing Model, and included a premium for Guaracachi's exposure to Bolivia's country risk.[312] The relevant cost of debt was derived based upon an estimate of the borrowing costs for the Bolivian electricity generation sector. This estimate was computed using Guaracachi's debt holdings as of December 2009 and bond issues of Compañía Boliviana de Energía Eléctrica.[313] The cost of equity and cost of debt were then averaged based upon the average leverage for the industry. The weighted average at which Dr Abdala then arrives, 10.63%, represents Guaracachi's cost of capital as of 1 May 2010.

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310 Appendix B to the Compass Lexecon Report provides a detailed explanation of how the WACC was derived for Guaracachi.

311 Compass Lexecon Report, ¶¶ 93-96.

312 Guaracachi's cost of equity was estimated to be 14.45% in US dollars as at 2010: *see* Compass Lexecon Report, ¶ 95.

313 Guaracachi's cost of debt was estimated to be 7.88% in US dollars as at 2010: *see* Compass Lexecon Report, ¶ 96.

3. Key assumptions in the "but-for" scenario (DCF)

252. The assumptions that Dr Abdala has incorporated into his DCF model are consistently reasonable. The key assumptions forming the basis of the Compass Lexecon damages model with respect to Guaracachi include: (i) time frame; (ii) spot and capacity prices;[314] (iii) energy dispatch volumes; (iv) carbon credits revenues; (v) operating expenditures (***OPEX***) and capital expenditures (***CAPEX***); (vi) bottom line cash flows; and (vii) the WACC.[315]

- ***Time frame*.** The DCF projection operates on the basis that Guaracachi's generating Licenses remain in force until their expiration in 2038[316] and projects the annual cash flows from May 2010 to December 2038 on that basis.[317] This is an appropriate assumption as there is no indication that the generating Licenses will not remain active until their expiry in 2038. Indeed, they are still in force, and are being exploited by Bolivia.

- ***Spot prices.*** In order to ensure the precise replication of the spot prices that would have been generated, Dr Abdala enlisted the assistance of a specialized engineering firm, MEC. MEC was able to construct a dispatch simulation calculating Guaracachi's spot energy prices in light of electricity supply and demand over time. To project the path that electricity spot prices would have taken in the absence of the Nationalization Measure (but with the Spot Price Measure in place), it used the same software that is employed by the *Comité Nacional de Despacho de Carga* (***CNDC***), the Bolivian wholesale electricity market

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314 *See* paragraphs 43-47 above.

315 *See* Compass Lexecon Report, ¶¶ 71-96.

316 Wherever relevant, Dr Abdala takes account of the fact that the license for the Karachipampa unit expires in 2028.

317 Compass Lexecon Report, ¶ 71.

administrator.[318] MEC's dispatch simulation covers the period from May 2010 to December 2018. For the period from 2019 to 2038, Dr Abdala uses MEC's projected spot prices for 2018, adjusted on an annual basis by the US Producer Price Index (***PPI***), assuming that prices would remain constant in real terms.[319] In creating this simulation, MEC applied Dr Abdala's assumptions, including hydrological conditions, electricity demand, reserve margin, fuel prices, and the timing of entry for new generating units.[320] Dr Abdala additionally makes assumptions as to the expected evolution of key input prices for natural gas and diesel based on the regulated prices. He also considers factors affecting the demand and supply side of the model, such as new generating capacity, and demand growth and seasonality conditions.

- ***Capacity prices.*** Similarly, Dr Abdala uses MEC's dispatch runs to discern information as to available capacity between May 2010 and December 2018. He employs this information, as well as the regulated capacity price of each of Guaracachi's generating units (assuming the Capacity Price Measure would remain in place), to calculate the capacity payment revenue. Again, Dr Abdala calculates this revenue stream between 2019 and 2038 using 2018 price levels (as adjusted annually by the US PPI).

- ***Carbon credits revenues.*** Dr Abdala also factors in the effect of Guaracachi's greenhouse gas emission reductions as a result of the conversion to combined cycle. Guaracachi was entitled to a certain number of Certified Emission Reductions (***CER***) per year, which could be sold at the spot market, unless Guaracachi had already contracted to sell

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318 This software is known as Stochastic Dual Dynamic Programming (***SDDP***): *see* Compass Lexecon Report, ¶ 72, footnote 53.

319 The US PPI was used for the reason that spot and capacity prices are expressed in nominal terms, which are denominated in US dollars per MWh.

320 *See* Compass Lexecon Report, Appendix C.

them. The payments arising from future spot market sales and contracts to which Guaracachi was a party are considered by Dr Abdala. In particular, as of 1 May 2010, Guaracachi had outstanding pre-sale carbon contracts with Corporación Andina de Fomento and Kreditanstalt für Wiederaufbau, in which it had agreed to sell a portion of the CERs that it generated.[321]

- ***OPEX.*** Energy costs are the main variable cost to be taken into consideration. As natural gas is the primary energy cost for Guaracachi's production units, Dr Abdala uses the regulated maximum natural gas price as of May 2010. He assumes that it will remain constant in real terms over time, and indexes it using the US PPI (as Bolivian natural gas prices are expressed in US dollars). The remaining variable costs are indexed in light of the projected energy dispatch generated by MEC, and adjusted by the Bolivian consumer price index (with the exception of costs related to the toll energy transport tariff, which is expressed in US dollars, and thus indexed using the US PPI). Fixed costs in the local currency, on the other hand, are adjusted according to the Bolivian average consumer price index.

- ***CAPEX.*** Capital expenditures are forecast on the basis of Guaracachi's remaining budgeted costs to complete its combined cycle expansion project, as drawn from Guaracachi's 2009 financial statements.

- ***Bottom line cash flows.*** Dr Abdala forecasts the evolution of the key variables described above to estimate Guaracachi's free cash flows between 2010 and 2018.

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[321] Contract between KfW and Empresa Eléctrica Guaracachi S.A for the Purchase of CERs, 22 October 2009, **Exhibit C-178**; Contract between Corporación Andina de Fomento and Empresa Eléctrica Guaracachi S.A for the Purchase of CERs, 26 October 2009, **Exhibit C-179**.

- ***WACC (discount rate).*** The average WACC used in the Compass Lexecon Report is 10.63%. As discussed above,[322] this discount rate captures Guaracachi's implicit risk of future cash flows, and is derived from an assessment of Guaracachi's costs of debt, costs of equity and the relative weight between them. It reflects the operational risks in the Bolivian electricity industry. The sensitivity analysis included in the Compass Lexecon Report reveals the conservative character of the assumptions used.[323]

253. On the basis of these reasonable assumptions, Dr Abdala calculates the "but-for" fair market value of Guaracachi's operating assets at US$80.9 million as of 1 May 2010.[324] Inclusive of pre-award interest, which is compounded annually and calculated using the average WACC of 10.63%, the total damages for the Nationalization Measure are US$97.3 million as at 29 February 2012.[325]

D. RURELEC IS ENTITLED TO FULL COMPENSATION FOR BOLIVIA'S EXPROPRIATION OF THE WORTHINGTON ENGINES

254. As described above,[326] Energais (formerly known as ESA), a subsidiary of Rurelec,[327] owned two Worthington engines, ARJ-4 and ARJ-7. Guaracachi stored the Worthington engines on Energais's behalf at its Aranjuez plant in Sucre. These assets were nationalized along with the rest of Guaracachi's assets at the Aranjuez plant on 1 May 2010. As explained above, assets owned by

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322 *See* paragraph 235 above.

323 *See* Compass Lexecon Report, ¶¶ 140-143.

324 Compass Lexecon Report, ¶ 97.

325 Compass Lexecon Report, ¶ 138.

326 *See* paragraphs 73-74 and 111-113 above.

327 Rurelec was the beneficial owner of Energias (formerly known as ESA) after it acquired Guaracachi's 99.998% interest in ESA: *see* Agreement for the Sale and Purchase of Empresa para Sistemas Aislados ESA S.A. between Empresa Eléctrica Guaracachi S.A. and Rurelec Limited, 8 October 2004, **Exhibit C-103**; Amendment to the Agreement for the Sale and Purchase of Empresa para Sistemas Aislados ESA S.A. between Empresa Eléctrica Guaracachi S.A. and Rurelec Limited, 28 February 2005, **Exhibit C-109**.

Energais did not fall within the scope of the Nationalization Decree, and therefore on any view were taken improperly and without due process of law.

255. Despite a series of written requests made to both the new management at Guaracachi as early as 27 August 2010,[328] and to the Procurador General del Estado from 25 October 2011,[329] neither the new management nor Bolivia has indicated a willingness to return the assets or to pay compensation. Bolivia is obliged to compensate Rurelec for the "financially assessable damage"[330] it has suffered as a result of the expropriation. Rurelec therefore seeks full compensation for Bolivia's unlawful expropriation of its interest in the two Worthington engines.

256. Energais is essentially a wholly-owned subsidiary of Rurelec. Subsequent to a capital reduction in 2004 (prior to the acquisition by Rurelec), the engines were Energais's only assets.[331] Therefore, once the engines had been seized without compensation by Bolivia, Rurelec's shareholding in Energais was rendered entirely worthless. Shares in Energais continue to have no financial value today.

257. The market value of the Worthington engines, and therefore of Rurelec's interest in Energais, is reflected by the purchase price that Rurelec paid for ESA.[332] The

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328 Letters from Energais to Empresa Eléctrica Guaracachi S.A. requesting return of the Worthington engines owned by Energais, 27 August 2010 – 3 August 2011, **Exhibit C-209**.

329 Letter from Freshfields to Procurador General del Estado, 25 October 2011, **Exhibit C-199**; Letter from Freshfields to Procurador General del Estado, 29 November 2011, **Exhibit C-201**.

330 International Law Commission, "Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries", 2001, **Exhibit CL-21**, Article 36.

331 *See* Audited Financial Statements of Empresa para Sistemas Aislados ESA S.A., 27 May 2004, **Exhibit C-100**; Audited Financial Statements of Empresa para Sistemas Aislados ESA S.A., 30 September 2004, **Exhibit C-102**; Audited Financial Statements of Empresa para Sistemas Aislados ESA S.A., 31 December 2004, **Exhibit C-107**.

332 *See* Agreement for the Sale and Purchase of Empresa para Sistemas Aislados ESA S.A. between Empresa Eléctrica Guaracachi S.A. and Rurelec Limited, dated 8 October 2004, **Exhibit C-103**; Amendment to the Agreement for the Sale and Purchase of Empresa para Sistemas Aislados ESA S.A. between Empresa Eléctrica Guaracachi S.A. and Rurelec Limited, 28 February 2005, **Exhibit C-109**; Receipts of Transfer of Funds from Rurelec to Guaracachi, 13 October 2004 and 4 March 2005, **Exhibit C-104**.

purchase price was US$550,000, and Rurelec therefore seeks compensation in this amount. The reasonableness of this figure is confirmed by the contemporaneous sale by Guaracachi of two similar Worthington engines for a comparable price of US$500,000.[333]

258. Because Rurelec was due to be compensated as at the date of the expropriation of the engines, pre-award interest should accrue from 1 May 2010. Consistent with the reasoning presented in relation to pre-award interest for the Nationalization Measure,[334] interest should be calculated using the average WACC of 10.63% and compounded annually. Pre-award interest is calculated at $111,535.

259. On this basis, Rurelec claims a total of $661,535 for the losses it suffered from Bolivia's expropriation of the two Worthington engines as at 29 February 2012.

E. GAI AND RURELEC ARE ENTITLED TO FULL COMPENSATION FOR THEIR PRE-NATIONALIZATION LOSSES

260. As explained in Chapter IV above, Bolivia imposed two measures before 1 May 2010 that had a significant impact on GAI and Rurelec's investments in Guaracachi. Both the Capacity Price and Spot Price Measures constituted violations of the Treaties for which full compensation is required. Under general international law, Bolivia is thus obliged to "wipe out all the consequences" of its illegal acts and "re-establish the situation which would, in all probability, have existed if that act had not been committed" through the provision of full compensation.[335] Such compensation must extend to GAI and Rurelec's "financially assessable damage including loss of profits".[336] The quantum of

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[333] Purchase Agreement relating to Two Worthington Motors with Associated Equipment, 24 November 2006, **Exhibit C-124**.

[334] *See* paragraph 239 above.

[335] *Factory at Chorzów* (Merits), PCIJ Series A No 17, 1928, **Exhibit CL-2**, p. 47.

[336] International Law Commission, "Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries", 2001, **Exhibit CL-21**, Article 36.

compensation due for the discrete losses caused by each of the Pre-Nationalization Measures will be addressed in turn.

1. Spot Price Measure

261. The imposition of the Spot Price Measure affected Guaracachi's revenues and resulted in "financially assessable damage". More specifically, the Spot Price Measure's modification of the spot energy price system by excluding liquid fuel units (the units with the highest marginal cost) from the calculation depressed spot prices, eliminating a significant portion of Guaracachi's profit margin.

a. Application of discrete damages calculation

262. Dr Abdala derives the difference between spot energy price levels with and without the imposition of the Spot Price Measure, multiplies the prices by expected sales at the relevant time, and deducts related operating costs and taxes. In this way, he isolates the effect of the exclusion of liquid fuel units from price formation pursuant to the Spot Price Measure. This calculation reveals that the exclusion of liquid fuel units reduced spot energy prices on average by 14.04% in the pre-nationalization period.[337] For clarity of presentation, Dr Abdala separately calculates the damages accruing before and after 1 May 2010, until the expiry of the Licenses in 2038. According to his view, no damages would have been suffered from this Measure after 2016, as new generating capacity on the market would have pushed spot prices lower in the absence of the Spot Price Measure.[338]

263. Dr Abdala calculates the discrete damages as of the date of the Compass Lexecon Report, 29 February 2012 (as a proxy for the date of the Tribunal's Award), to account for the ongoing nature of Bolivia's breaches of the Treaties. The Claimants' losses are actualized to 29 February 2012 using the average

[337] Compass Lexecon Report, ¶ 116.

[338] Compass Lexecon Report, ¶ 122.

WACC of 10.63%.[339] The amount of the Claimants' discrete damages correlates to their pro rata stake in the company (50.001%).

b. Key assumptions in the "but-for" and "actual" models

264. In the calculation of spot prices, Dr Abdala bases his calculation inputs on verified data. For the "actual" scenario, he relies on data published by the CNDC, and in particular its detailed monthly post-dispatch run reports. For his "but-for" analysis, Dr Abdala employs MEC's computation of the spot energy prices and dispatch quantities that would have eventuated, had Resolution SSDE No 283/2008 never been introduced. He also takes into account the fact that Guaracachi's combined cycle would have commenced operations in at least November 2010. Dr Abdala's conservative assessment is further demonstrated by his comprehensive calculation of potential operating costs in the "but-for" scenario, which include the CNDC's technical assistance fee, the AE's regulation rate, the dignity tariff and transaction, income and value-added taxes.[340]

265. Dr Abdala ultimately estimates damages to the Claimants of US$5.7 million due to the Spot Price Measure (comprising US$4.5 million up until May 2010, and US$1.2 million after that date), as of 29 February 2012.[341]

2. Capacity Price Measure

266. Bolivia's failure to ensure effective means of redress in violation of the Treaties has precluded GAI and Rurelec from obtaining proper assessment of the capacity price payments and from receiving the capacity price payments to which they are entitled. As explained above,[342] the Supreme Court of Bolivia has withheld any decision on these contested issues for years. It must therefore be assumed that,

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339 Compass Lexecon Report, ¶ 121.

340 *See* Compass Lexecon Report, ¶¶ 118-119.

341 Compass Lexecon Report, ¶¶ 124-125.

342 *See* paragraphs 89-94 above.

had effective means of recourse been available, the full capacity price payments would have been restored retroactively to GAI and Rurelec.

267. From the implementation of Resolution SSDE No 040 in May 2007,[343] the capacity payment prices received by Guaracachi were diminished by 17% as a result of the reduction of the complementary equipment costs component.[344] This in turn directly reduced Guaracachi's free cash flows to equity during this period. To ensure full reparation, GAI and Rurelec must be compensated by an amount equivalent to these lost cash flows, actualized to the date of the Tribunal's Award. As Bolivia's breach is ongoing, it is appropriate to value these losses as of this date.

a. Application of discrete damages calculation

268. In the case of GAI and Rurelec's losses in relation to the Capacity Price Measure, "wiping out the consequences" of Bolivia's unlawful acts is best achieved through a discrete lost net revenue calculation. This involves a straightforward calculation of the difference between Guaracachi's actual revenues as a result of the Capacity Price Measure (the "actual" scenario) and the revenues that it would have realized had the measure never been implemented (the "but-for" scenario)[345] across the relevant period, including a deduction of all taxes and additional costs that Guaracachi would have incurred had it realized a higher level of revenue. The calculation covers the period from May 2007 to 2038, though the pre- and post-nationalization periods are separated for the sake of clarity. Due to the nationalization, different data is used in the two periods. Dr Abdala quantifies these damages as of the date of the Compass Lexecon Report (29 February 2012), as a proxy for the date of the Tribunal's Award. He actualizes the Claimants'

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343 The modification introduced by Resolution SSDE No. 040/2007 (enacted on 8 February 2007) did not retroactively affect the capacity price fixed for the November 2006 to April 2007 period. This means that the modified capacity price was effectively applied in May 2007.

344 *See* paragraphs 95-97 above.

345 Compass Lexecon Report, ¶ 128.

losses to this date by using the average WACC of 10.63% and then calculates the discrete damages to GAI and Rurelec on the basis of their pro rata stake in the company (50.001%).

b. Key assumptions in the "but-for" and "actual" scenarios

269. As with the DCF model used to quantify the effect of the Nationalization Measure, Dr Abdala has applied reasonable assumptions to assess the damage to GAI and Rurelec's investments in Guaracachi resulting from the Pre-Nationalization Measures. The reliability of Dr Abdala's analysis is assured by the incorporation of observed historical information in his calculations. For the period between May 2007 and May 2010, the "actual" scenario is based on data endorsed by the CNDC. From May 2010 until the expiry of the Licenses in 2038, his projections are based on the price at 1 May 2010, indexed by US PPI. Calculations in the "but-for" scenario assume that Resolution SSDE No 040 had not been enacted, and thus that the complementary equipment costs component remains as 20% of the FOB price of a Greenfield turbine. Dr Abdala has also considered the full range of potential operating costs in the "but-for" scenario, which include the CNDC's technical assistance fee, the AE's regulation rate, the dignity tariff and transaction, income and value-added taxes.[346]

270. Dr Abdala ultimately arrives at an estimate of GAI and Rurelec's losses caused by the Capacity Price Measure of US$39.3 million, as of 29 February 2012, composed of US$5.8 million prior to May 2010, and US$33.5 million after that date.[347]

F. SUMMARY OF DAMAGES TO GAI AND RURELEC

271. GAI and Rurelec are entitled to full compensation for Bolivia's breaches of the Treaties in relation to (i) the Nationalization Measure, (ii) the Capacity Price

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346 *See* Compass Lexecon Report, ¶ 132.

347 Compass Lexecon Report, ¶ 136.

Measure, and (iii) the Spot Price Measure. GAI and Rurelec's claim for compensation for the breaches of the Treaties occasioned by the Measures, as at their respective valuation dates, amounts to a total figure of US$142.3 million. This figure is inclusive of the pre-award interest claimed for the Nationalization Measure, which amounts to a total of $16.5 million. GAI and Rurelec's claim for compensation is summarized in the following table:[348]

Total Damages to Claimants		
In USD million		
Nationalization Claim		
Claimants' Equity Value @ May 1, 2010	[a]	*80.9*
Pre-Judgment Interests	[b]	*16.5*
Nationalization Claim @ Feb. 29, 2012	[c] = a + b	**97.3**
Discrete Damages		
Spot Price Claim @ Feb. 29, 2012	[d]	*5.7*
Capacity Price Claim @ Feb. 29, 2012	[e]	*39.3*
Total Damages to Claimants @ Feb. 29, 2012	[f] = c + d + e	**142.3**

272. GAI and Rurelec also request the payment of post-award interest on all damages awarded by the Tribunal. GAI and Rurelec submit that post-award interest should be calculated on a compound basis at a rate equivalent to the average WACC of 10.63%, from the date of the Tribunal's Award until full payment is made by Bolivia.

273. In addition, Rurelec also claims an additional amount of $661,535 for the loss it sustained as a result of Bolivia's expropriation of Energais's two Worthington engines. This figure is inclusive of pre-award interest to February 29, 2012, which

348 Compass Lexecon Report, ¶ 139.

was also compounded and calculated using the WACC. Rurelec also claims post-award interest in relation to this loss.

VI. THE CLAIMANTS' REQUEST FOR RELIEF

274. On the basis of the foregoing, without limitation and fully reserving its right to supplement this request, the Claimants respectfully request the following relief:

(a) DECLARE that Bolivia has breached the Treaties and international law, and in particular, that it has:

(i) expropriated the Claimants' investments without prompt, just, adequate and effective compensation, in violation of Article III of the US Treaty and Article 5 of the UK Treaty and international law;

(ii) failed to accord the Claimants' investments fair and equitable treatment and full protection and security, and impaired them through unreasonable and discriminatory measures, in violation of Article II.3 of the US Treaty and Article 2(2) of the UK Treaty; and

(iii) failed to provide the Claimants with effective means of asserting claims and enforcing rights with respect to covered investments, in violation of Article II.4 of the US Treaty and Article 3 of the UK Treaty.

(b) ORDER Bolivia to compensate the Claimants for Bolivia's breaches of the Treaties and international law in the amount of US$142.3 million, plus interest until full payment of the award is made;

(c) ORDER Bolivia to compensate Rurelec for Bolivia's breaches of the Treaties and international law in relation to the Worthington engines in the amount of US$661,535, plus interest until full payment of the award is made;

(d) AWARD such other relief as the Tribunal considers appropriate; and

(e) ORDER Bolivia to pay the costs of these arbitration proceedings, including the fees and expenses of the Tribunal, the fees and expenses of the institution which is selected to provide appointing and administrative services and assistance to this arbitration, the fees and expenses relating to the Claimants' legal representation, and the fees and expenses of any expert appointed by the Claimants or the Tribunal, plus interest.

Respectfully submitted on 1 March 2012

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