

CHALLENGING THE RE-REGULATION OF LIBERALIZED ELECTRICITY PRICES UNDER INVESTMENT ARBITRATION

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Synopsis: According to the liberalized electricity markets paradigm, free market prices are expected to stimulate sufficient investment in production capacity to meet future electricity demand. This implies that electricity producers must be able to recover their operating and investment costs whilst achieving a reasonable return on their investment. They must be allowed to pass increases in the price of primary energy sources on to the consumer. Moreover, to send the right investment signals, shortage of production capacity must be reflected in higher prices. However, such price increases can be opposed to short-term social, economic, and political interests. A perception amongst investors that public authorities are likely to cede to public pressure and interfere in price formation has a negative impact on the inflow of capital to the sector. Energy companies will be reluctant to invest if they perceive a risk that governments might re-regulate electricity prices and so prevent them from recovering their costs and earning a reasonable rate of return. On the contrary, a guarantee that free market prices will be respected is likely to facilitate investments. This contribution argues that international investment law could provide this guarantee of protection. International investment standards, in particular the fair and equitable treatment standard, could shield foreign investors in electricity production from the introduction of price caps or the re-regulation of liberalized electricity prices. Investment arbitration could therefore contribute to the regulatory stability and predictability needed in liberalized markets to attract sufficient investments in the expansion and modernization of electricity production.

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I. INTRODUCTION

Confronted with public budget constraints, states often decide to privatize the electricity production sector in order to finance the large investments needed to modernize and expand production capacity.¹ In the context of such privatization programs, investors purchase electricity production assets from the state and commit to invest in the refurbishment of obsolete installations and in the construction of additional power plants.

To attract private capital and technology into these projects, states provide investors with pricing guarantees that should ensure the financial viability of their investments.² These pricing guarantees consist of regulated tariffs under long-term Power Purchase Agreements.³ They may also consist of a commitment by the state to liberalize the electricity market, i.e. to reform the electricity sector on a free market and competitive basis. In the latter scenario, electricity producers invest based on the expectation that they will be allowed to freely determine the sale price of the electricity they produce.⁴ Indeed, in liberalized markets, state regulated electricity tariffs are replaced with prices formed by the forces of supply and demand. In contrast to the "central command and control," or monopolistic, organization of the electricity sector, companies that invest on the basis of a liberalization commitment expect to recover their

1. In developing and transition economies, privatization programs have often been implemented under the impulse of the International Monetary Fund and the World Bank. See, e.g., Xu Yi-chong, *The Myth of the Single Solution: Electricity Reforms and the World Bank*, 31 ENERGY 802 (2006); Jim H. Williams & Ravi Ghanadan, *Electricity Reform in Developing and Transition Countries: A Reappraisal*, 31 ENERGY 815 (2006); Erik J. Woodhouse, *The Obsolescing Bargain Redux? Foreign Investment in the Electric Power Sector in Developing Countries*, 38 N.Y.U. J. INT'L L. & POL. 121 (2005-2006).

2. Ranjit Lamech & Kazim Saeed, *What International Investors Look for when Investing in Developing Countries: Results from a Survey of International Investors in the Power Sector* 9 (World Bank Grp. Energy & Mining Sector Bd., Discussion Paper No. 6, 2003), available at [http://irispublic.worldbank.org/85257559006C22E9/All+Documents/85257559006C22E985256FFC00762921/\\$File/InvestorsPaperNo6.pdf](http://irispublic.worldbank.org/85257559006C22E9/All+Documents/85257559006C22E985256FFC00762921/$File/InvestorsPaperNo6.pdf)

3. Woodhouse, *supra* note 1, at 130.

4. EURELECTRIC, ENSURING INVESTMENTS IN A LIBERALISED ELECTRICITY SECTOR 16-18 (Mar. 2004), available at <http://www.erranet.org/index.php?name=OE-eLibrary&file=download&id=2994&keret=N&showheader=N>.

investment through the free market price formation mechanism. They also expect to make a reasonable profit by freely fixing the prices that they charge to consumers, taking into account competing offers by other producers on the market.

However, free market pricing can be opposed for short-term social, economic and political reasons.⁵ Politicians tend to protect the competitiveness of their domestic strategic industries and the immediate social concerns of the population. The temptation on the part of policy-makers to interfere with electricity prices to stimulate the domestic industry and please voters is often irresistible.⁶ Public authorities can hold back “legitimate” price increases by temporarily re-regulating liberalized electricity prices (*i.e.* by re-introducing administrative prices) or by introducing limits (caps) to the market price of electricity.

Public interference with electricity prices might prevent producers from recovering their costs and earning a reasonable return on investment. Following the re-regulation of liberalized electricity prices, or the introduction of price caps, investors in electricity production might, thus, operate at loss.

A perception amongst investors that public authorities are likely to cede to public pressure and interfere with electricity prices has a negative impact on the inflow of capital to the sector.⁷ Indeed, investments in electricity production are characterized with high capital-intensity and long pay-back time. The risk of public interference with the financial basis of their investment requires electricity companies to integrate a risk premium or to reduce the expected return on investments. Therefore, the lack of credibility amongst pricing policies in the electricity sector inevitably reduces the equilibrium investment volume.⁸

5. See, e.g., Robert P. Anex, *Restructuring and Privatizing Electricity Industries in the Commonwealth of Independent States*, 30 ENERGY POL’Y 397, 407 (2002) (Anex mentions the example of electricity reforms in the Commonwealth of Independent States (CIS) and considers that “[a]ttracting foreign investments will require raising tariffs to economic levels that allow a reasonable rate of return. However, given the social and strategic importance of electricity, the governments of the CIS have been unwilling to do so.”); Aashish Mehta et al, *Power Sector Reform in Central Asia: Observations on the Diverse Experiences of Some Formerly Soviet Republics and Mongolia*, 15 J. CLEANER PRODUCTION 218, 233 (2007).

6. Fereidoon P. Sioshansi & Wolfgang Pfaffenberger, *Why Restructure Electricity Markets?*, in ELECTRICITY MARKET REFORM: AN INTERNATIONAL PERSPECTIVE 35, 43 (Fereidoon Sioshansi & Wolfgang Pfaffenberger eds., 2006) (Sioshansi and Pfaffenberger argue that there may be “considerable public pressure on governments to replace the invisible hand of the market by the intrusive hands of government.”); OREN CONSULTING, PROGRAM ON TECHNOLOGY INNOVATION: ALTERNATIVE APPROACHES TO GENERATION ADEQUACY INSURANCE 3-1 (2007), available at <http://www.ieor.berkeley.edu/~oren/pubs/II.C.28.pdf>; JOHANNES PFEIFENBERGER, KATHLEEN SPEES & ADAM SCHUMACHER, THE BRATTLE GRP., A COMPARISON OF PJM’S RPM WITH ALTERNATIVE ENERGY AND CAPACITY MARKET DESIGNS 22 (2009), available at http://www.brattle.com/_documents/UploadLibrary/Upload807.pdf.

7. Gert Brunekreeft & Tanga McDaniel, *Policy Uncertainty and Supply Adequacy in Electric Power Markets*, 21 OXFORD REV. ECON. POL’Y 111, 125 (2005); Steven Peterson & Charles Augustine, *Regulatory Failure in the California Electricity Crisis*, THE ELECTRICITY J., Aug.-Sept. 2003, at 56, 60; Karsten Neuhoﬀ & Laurens De Vries, *Insufficient Incentives for Investment in Electricity Generations*, 12 UTILS. POL’Y 253, 264 (2004); Fabien A. Roques, *Market Design for Generation Adequacy: Healing Causes Rather Than Symptoms*, 16 UTILS. POL’Y 171, 175 (2008).

8. Brunekreeft & McDaniel, *supra* note 7, at 112–115; Dieter Helm, *Infrastructure and Infrastructure Finance: The Role of the Government and the Private Sector in the Current World*, 15 EIB PAPERS, NO. 2, at 8, 11 (2010), available at http://www.eib.org/attachments/efs/eibpapers/eibpapers_2010_v15_n02_en.pdf.

On the contrary, a guarantee that pricing commitments will be respected is likely to reduce the costs of electricity production and supply. In a liberalized market environment, protecting private investors from public interference with “legitimate” increases in electricity prices, in theory, will contribute to the stimulation of investment for the modernization and necessary expansion of the electricity sector.

In the present contribution, I question whether international investment law could provide this guarantee of protection. Investment treaties (such as the Energy Charter Treaty)⁹ aim to protect foreign investors against public interference with the financial and regulatory basis of their investments.¹⁰ International investment law is based on the necessity to reduce non-commercial (regulatory and political) risks in order to promote the inflow of foreign capital and technology.¹¹ Against this background, I analyze whether international investment protection standards are capable of shielding foreign investors in electricity production from the re-regulation of liberalized electricity prices. From a substantive law perspective, I examine the interaction between international investment law and electricity market liberalization, enquiring as to whether international investment law provides adequate guarantees of protection against public (government) interference with liberalized (free market) prices. Can investment arbitration protect electricity investors against the introduction of price measures that prevent them from recovering their costs and earning a reasonable return on investment? Could international investment law provide the regulatory stability and predictability needed to attract sufficient investments in the development and modernization of electricity production?

To answer these questions I review general arbitral practice (“case law”), and, in particular, I examine arbitral awards concerning the electricity sector. Two recent cases are of special importance: *AES v. Hungary*¹² and *Total v. Argentina*.¹³ These cases concern allegations by electricity investors that the host state violated the applicable investment treaty by re-introducing regulated electricity tariffs after central state regulation of prices had been abolished. The tribunals in *AES v. Hungary* and *Total v. Argentina* thus had to decide whether the re-regulation of electricity prices in a liberalized (or reformed) market environment is compatible with international investment protection law.

The argument of this contribution will proceed as follows. In Title II, I present how governments could interfere with the financial basis of investments

9. ENERGY CHARTER SECRETARIAT, ENERGY CHARTER TREATY AND RELATED DOCUMENTS: A LEGAL FRAMEWORK FOR INTERNATIONAL ENERGY COOPERATION 39-132 (Sept. 2004), available at http://www.encharter.org/fileadmin/user_upload/document/EN.pdf [hereinafter ENERGY CHARTER TREATY] (opened for signature Dec. 17, 1994).

10. RUDOLF DOLZER & CHRISTOPH SCHREUER, PRINCIPLES OF INTERNATIONAL INVESTMENT LAW *passim* (2008).

11. ENERGY CHARTER SECRETARIAT, THE ENERGY CHARTER TREATY: A READER'S GUIDE 19 (2002), available at http://www.encharter.org/fileadmin/user_upload/document/ECT_Guide_ENG.pdf; Andrei Konoplyanik & Thomas Wälde, *Energy Charter Treaty and Its Role in International Energy*, 24 J. ENERGY & NAT. RESOURCES L. 523 (2006).

12. AES Summit Generation Ltd. v. Republic of Hungary, ICSID Case No. ARB/07/22, Award (Sept. 23 2010), available at <http://italaw.com/documents/AESvHungaryAward.pdf>.

13. Total S.A. v. Argentine Republic, ICSID Case No. ARB/04/1, Decision on Liability (Dec. 27, 2010), available at http://italaw.com/documents/TotalvArgentina_DecisionOnLiabilty.pdf.

in electricity production. I start by explaining in more detail how government interference with prices can adversely affect, and even jeopardize, the functioning of liberalized electricity markets and how it may threaten long-term security of supply and consumer welfare. I focus in particular on the liberalization experience accumulated in the European Union and in the Russian Federation. The European and Russian cases are not only relevant because of their liberalization history. They are also among the biggest liberalized markets in the world. Moreover, although based on comparable premises, the European and Russian markets are characterized with different pricing approaches which, therefore, illustrate different investment risks.

It appears from an analysis of the European and Russian liberalization experience that government interference with electricity prices can be divided into two categories depending on the type of commitments made by the state to attract investments in electricity production. Tariff commitments made in a pre-liberalization period must be distinguished from free market pricing promises made in the context of electricity market liberalization. This dichotomy also clearly appears in the *AES v. Hungary* and *Total v. Argentina* cases.

In Title III, I briefly introduce the international investment protection standards that electricity producers could invoke against government interference with prices: the prohibition of discriminatory and arbitrary measures, fair and equitable treatment, and expropriation. Title IV puts these protection mechanisms to the test by presenting the facts and decisions in the *AES v. Hungary* and *Total v. Argentina* cases.

In Title V, I critically analyze the reasoning and the outcome of the *AES* and *Total* awards and make recommendations on the interaction between investment arbitration and electricity production investments in liberalized markets. The focus is on the fair and equitable treatment standard of international investment law and, in particular, on the principle of the protection of investors' legitimate and reasonable expectations.

I start this critical analysis by examining whether the fair and equitable treatment standard recognizes and protects investors' expectations that the electricity market will be organized on a free market basis. The dichotomy of commitments, introduced in Title II, plays a central role in this analysis. Indeed, the pricing expectations of companies that base their investment decisions on pre-liberalization tariff commitments substantially differ from investors' expectations that build power plants on the basis of liberalization promises.

I then analyze the extent to which states could justify the possible breach of investors' free market pricing expectations by referring to the necessity to protect consumers against "unreasonable" price increases. Based on the broad approach followed by the arbitral tribunal in *AES v. Hungary*, states could justify interference with electricity prices based on populist reasons, *i.e.* to please voters in the context of upcoming elections.

Nevertheless, the "economic equilibrium" principle that the arbitral tribunal developed in *Total v. Argentina* provides considerable protection to investors against state measures that prevent them from recovering their costs and earning a reasonable return on investment. I describe how this new principle applies to electricity production investments made in a liberalized market environment.

Finally, I examine whether the re-regulation of liberalized electricity prices could be justified as a transitional measure in the context of the gradual

liberalization of markets. As confirmed by the European Court of Justice in the *Federutility* case,¹⁴ states may interfere with liberalized prices, but only on a temporary basis. Following the “economic equilibrium,” price limits that prevent investors from recovering costs over a longer period violate investors’ rights.

In sum, this contribution argues that investment arbitration can compel states to respect the liberalization promises that they make in order to attract foreign capital and technology in the development of their electricity production sector. International investment protection standards do, in theory, have the potential to protect foreign investors’ expectations that the electricity sector will be organized on a free market basis. A delicate issue however is how arbitral tribunals can balance investors’ concerns of regulatory stability with the sovereign right of the state to protect electricity consumers from “unreasonable” prices. Public price interference can be justified as a transitional measure in the context of the gradual creation of a liberalized market environment. In contrast, price caps that structurally prevent investors from recovering investment and operating costs and earning a reasonable return on their investment fundamentally contradict the basic economic and regulatory principles of liberalization. Such price measures have a long-term negative impact on security of supply, consumer welfare, and the economy. These measures therefore cannot be justified on the basis of short-term social or economic concerns.

II. GOVERNMENT INTERFERENCE IN REFORMED ELECTRICITY MARKETS

A. *Impact of Price Interference on Investments in Electricity Production*

According to the paradigm of liberalized electricity markets, free market prices are expected to send the right signals to investors to make the necessary investments to meet future demand.¹⁵ The European internal electricity market, for instance, is based on the idea that “[m]arket prices should give the right incentives . . . for investing in new electricity generation.”¹⁶ This implies that producers must be able to recover their investment (capital) and operating (*e.g.*, fuel) costs and to earn a reasonable return on investment, taking into account the perceived level of risk. Investors must be allowed to pass increases in the prices of primary energy sources on to electricity consumers. Shortage of production capacity must be reflected in higher electricity prices.¹⁷ The European

14. Case C-265/08, *Federutility & others v. Autorità per l’energia elettrica e il gas*, 2010 E.C.R. 00000 (Apr. 20, 2010), available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:62008J0265:EN:NOT>.

15. EURELECTRIC, SECURITY OF ELECTRICITY SUPPLY: ROLES, RESPONSIBILITIES AND EXPERIENCES WITHIN THE EU 13 (2006); EURELECTRIC, *supra* note 4, at 16-18, 53; Jon Stern & Junior R. Davis, *Economic Reform of the Electricity Industries of Central and Eastern Europe* 1, 10 (Ctr. for Econ. Reform and Transformation, Discussion Paper No. 25, Dec. 1997), available at <http://www.sml.hw.ac.uk/downloads/cert/wpa/1997/dp9725.pdf>.

16. Council & Parliament Directive 2009/72, recital 56, 2009 O.J. (L 211) 55, 61 (EC) [hereinafter Directive 2009/72].

17. Richard O’neill et al., *Independent System Operators in the USA: History, Lessons Learned, and Prospects*, in ELECTRICITY MARKET REFORM: AN INTERNATIONAL PERSPECTIVE 479, 502 (Fereidoon Siohansi & Wolfgang Pfaffenberger eds., 2006); THE BRATTLE GRP., *supra* note 6, at 20.

Commission explains the reasoning underlying the European internal electricity market as follows:

[i]n a liberalised market . . . private investors are expected to ensure that sufficient capacity is available to meet demand. In general terms, the price mechanism is the way that this is expected to be achieved in the competitive market. As prices rise investment will become viable and either more capacity will come on stream, or demand will be constrained.¹⁸

Electricity production companies make their investment decisions on the basis of long-term forecasts of price developments and associated costs. Investors balance the returns that they can expect from electricity prices with the potential risks associated with their investments.¹⁹ Returns and risks differ depending on the organization of electricity markets on an “energy-only” basis or with “capacity remuneration mechanisms.”

In “energy-only” markets (*i.e.* in electricity markets without separate payments for the installed capacity of production installations), investor returns depend on the prices that may be charged for the electricity produced, minus their investment and operating costs.²⁰ Returns thus depend on electricity prices on the day-ahead market, the balancing (intraday) market and in bilateral contractual exchanges. The risks depend on the “confidence the investor has that he will be allowed to charge cost-reflective prices over the life of the investment.”²¹ Investors will demand higher prices (risk premiums) if they expect that the public authorities will interfere with electricity prices and prevent them from recovering their costs and earning a reasonable profit. According to the liberalization theory, price signals to investors will be distorted if governments cap prices under the Value of Lost Load (VOLL), *i.e.* the price that consumers are willing to pay to avoid interruption of electricity supply.²²

18. *Commission Proposal for a Directive of the European Parliament and of the Council: Concerning Measures to Safeguard Security of Electricity Supply and Infrastructure Investment*, at 4, COM (2003) 740 final (Dec. 10, 2003) [hereinafter *Commission Proposal*].

19. EURELECTRIC, *supra* note 4, at 53; PETER FRASER ET AL, INT’L ENERGY AGENCY, ENERGY MARKET REFORM: POWER GENERATION INVESTMENT IN ELECTRICITY MARKETS 12 (2003). The uncertain evolution of the costs and benefits during the life-time of investments constitutes an economic risk that is inherent to the pursuit of market activities. This economic risk needs to be distinguished from political and legal risks discussed hereunder. For an overview and discussion of risks related to electricity production activities, see generally Rory Sullivan & William Blyth, *Climate Change Policy Uncertainty and the Electricity Industry: Implications and Unintended Consequences* 3 (Chatham House Briefing Paper, Aug. 2006), available at <http://www.chathamhouse.org/sites/default/files/public/Research/Energy,%20Environment%20and%20Development/bp0806climatechange.pdf>; Xinying Zhang, *Investment in Electricity Generation and its Determinants* 8 (Grp. Reseaux Jean Monnet, Working Paper No. 6, 2006), available at http://www.grjm.net/documents/xinying/version_du_7_juillet.pdf.

20. It must be noted that some leading analysts doubt that “energy-only” markets provide the necessary incentives to generate investments in sufficient capacity to answer demand, especially during peak hours. Paul L. Joskow, *Introduction to Electricity Sector Liberalization: Lessons Learned from Cross-Country Studies*, in ELECTRICITY MARKET REFORM: AN INTERNATIONAL PERSPECTIVE 1, 21-22 (Fereidoon Sioshansi & Wolfgang Pfaffenberger eds., 2006). Analysts consider that in practice, pure “energy-only” markets rarely exist as states generally create “out-of-market” mechanisms to ensure reliability of electricity supply. These mechanisms include capacity reserves that the System Operator operates or purchases. THE BATTLE GRP., *supra* note 6, at 1, 27.

21. *Anex*, *supra* note 5, at 397.

22. THE BATTLE GRP., *supra* note 6, at 21.

In electricity markets with “capacity remuneration mechanisms,” investors receive an additional source of revenue that consists in the remuneration of the installed capacity of their installations. Operators of power plants do not only receive revenues for the electricity they produce. They are also paid for the mere readiness (or availability) of their power plants to produce electricity, independently from the amount of electricity actually delivered to the network. Capacity markets are a reaction to concerns that, in a liberalized environment, “energy-only” markets might not succeed in attracting sufficient and adequate investments to ensure reliable and secure electricity supply, in particular because of the risk of government interference with prices during scarcity periods.²³ There are different types of capacity remuneration mechanisms.²⁴ First, states might provide for “capacity payments” to all holders of production installations. Depending on their design, these payments may finance the installed capacity without being accompanied by specific obligations (i.e. payment for “steel in the ground”) or they may be bound to the availability of installations to produce electricity.²⁵ With “capacity payments,” the remuneration for the installed capacity covers the investment (*i.e.* capital) and maintenance costs of power plants (or at least part of these costs). The revenue for the sale of electricity primarily covers the operating costs of electricity production (*e.g.*, the fuel costs). Capacity markets can also specifically be designed to stimulate investments in peak capacity.²⁶ An option is to impose “capacity obligations” on electricity suppliers or consumers. In this scenario, the latter are required to purchase an amount of installed production capacity that corresponds to their peak supply/consumption or to a certain level of it. Producers, on the other hand, guarantee the availability of their installations to produce a corresponding amount of electricity. Alternatively, states might introduce “reliability options.”²⁷ These are financial call options that guarantee a fixed revenue stream to the operators of power plants in exchange of a commitment to produce electricity when the market price exceeds a defined strike price.²⁸

In electricity markets with capacity remuneration mechanisms, risks of public interference with electricity prices are more limited than in “energy-only” markets.²⁹ Indeed, a large part of the investment costs in peak production capacity is already covered by the capacity payments. Producers are less dependent on high electricity prices during periods of high demand. Capacity markets reduce price volatility³⁰ and therefore limit the probability of

23. Joskow, *supra* note 20, at 21.

24. DEP’T OF ENERGY AND CLIMATE CHANGE, PLANNING OUR ELECTRIC FUTURE: A WHITE PAPER FOR SECURE, AFFORDABLE AND LOW-CARBON ELECTRICITY 70 (2011), available at <http://www.decc.gov.uk/assets/decc/11/policy-legislation/emr/2176-emr-white-paper.pdf>.

25. OREN CONSULTING, *supra* note 6, at 6-1; Laurens De Vries, *Generation Adequacy: Helping the Market Do Its Job*, 15 UTILS. POL’Y 20, 24 (2007).

26. Joseph Bowring, *The PJM Market*, in ELECTRICITY MARKET REFORM: AN INTERNATIONAL PERSPECTIVE 451, 468 (Fereidoon Sioshansi & Wolfgang Pfaffenberger eds., 2006).

27. Laurens De Vries & Petra Heijnen, *The Impact of Electricity Market Design upon Investment Under Uncertainty: The Effectiveness of Capacity Mechanisms*, 16 UTILS. POL’Y 215, 223 (2008).

28. *Id.*

29. INT’L ENERGY AGENCY, RUSSIAN ELECTRICITY REFORM: EMERGING CHALLENGES AND OPPORTUNITIES 63 (2005).

30. Bowring, *supra* note 26, at 468.

government interference with prices. Nevertheless, governments might still be tempted to limit electricity price increases caused by higher costs of primary energy fuel purchases. Governments might also prevent investors from recovering the higher costs of state-of-the-art technologies by reducing capacity payments.

The risk of government interference with electricity and capacity prices can significantly reduce the amount of investment in electricity production.³¹ This can jeopardize the security of electricity supply and the modernization of the sector. The European Commission considers in this respect that “[i]n order for the [free market price] mechanism to work properly, investors need to be certain about the scope for government intervention in the electricity market. If not, regulatory uncertainty may prevent investments taking place.”³² In its Sector Inquiry on competition in European energy markets, the Directorate General for Competition of the European Commission stated that:

Member States could be tempted – especially in periods of rising wholesale prices – to set the supply tariffs below the corresponding wholesale benchmark to ensure lower price levels for customers. Whilst there may be short run benefits to (certain categories of) consumers, such supply tariffs have adverse effects for competition and thus for consumers in the longer run. . . . Also the tariffs distort the necessary price signals for investment into new generation capacity and are consequently damaging to security of supply.³³

Along the same line, the European Regulators Group for Electricity and Gas – ERGEG – considers that “[e]nd-user price regulation in electricity and gas markets distorts the functioning of the market and jeopardises both security of supply and the efforts to fight climate change.”³⁴ Similarly, the European association of electricity producers (EURELECTRIC) warns that states must “realise that price caps have a destructive effect on markets.”³⁵ Neuhoff and De Vries confirm that:

[a] source of regulatory uncertainty is caused by a possible lack of regulatory commitment. Will a regulator sustain the public pressure in a period of high prices and not react by imposing a low price? If generation companies only perceive that

31. Lamech & Saeed, *supra* note 2, at 9.

32. *Commission Proposal*, *supra* note 18, at 4.

33. *DG Competition Report on Energy Sector Inquiry*, at 202-203, SEC (2006) 1724 (Jan. 10, 2007). For an overview of public interference with electricity prices in Europe, see *Communication from the Commission to the Council and the European Parliament, Report on Progress in Creating the Internal Gas and Electricity Market*, at 12, Technical Annex table 2.5, 2.6, COM (2010) 84 final (Mar. 11, 2010).

34. EUROPEAN REGULATORS GRP. FOR ELEC. & GAS (ERGEG), STATUS REVIEW OF END-USER PRICE REGULATION AS OF 1 JANUARY 2010 7 (2010), available at [http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Customers/2007/E07-CPR-10-03_E-UPriceReg_0.pdf](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Customers/Tab1/E10-CEM-34-03_price%20regulation_8-Sept-2010.pdf).

35. EURELECTRIC, *supra* note 15, at 25. By the same token, Hughes and Parece defend the view that “[t]o obtain the benefits of competitive markets, regulators should avoid ‘solving’ price-spike problems by imposing price caps, which distort incentives and sometimes aggravate the price-spike problems they intend to solve.” William R. Hughes & Andrew Parece, *The Economics of Price Spikes in Deregulated Power Markets*, THE ELECTRICITY J., July 2002, at 31, 43.

there is a possibility that this³⁶ may happen, they have to discount future revenues during high price periods. . . .

To insulate the regulation of electricity markets from short-term public pressure, analysts recommend delegating sensitive decisions as regards the organization of the sector to specialized regulatory authorities. In accordance with institutional economic theory, regulatory authorities shall be created as separate entities from the industrial players and from the executive branch of government in order to implement their functions independently from private and political actors.³⁷ In the European Union, for instance, the Internal Electricity Market Directive (Directive 2009/72)³⁸ requires the Member States to “guarantee the independence of the regulatory authority” and to ensure that the regulatory authority “is legally distinct and functionally independent from any other public or private entity.”³⁹ Member States shall ensure that the staff and the persons responsible for the management of the regulatory authority “do not seek or take direct instructions from any government or other public or private entity when carrying out the regulatory tasks.”⁴⁰

However, given the sensitivity of electricity pricing, states have been reluctant to delegate the control over electricity prices to independent regulatory authorities. In the European Union, for instance, the Internal Electricity Market Directive does not include electricity pricing among the mandatory tasks to be exercised by the national regulatory authorities. As highlighted by the European Regulators Group for Electricity and Gas, most Member States’ governments – and not national regulatory authorities – decide on the introduction and removal of price caps in the competitive segment of the electricity market.⁴¹

Similarly, in the Russian Federation, the electricity market has been opened to competition and, at least in theory, organized on a free market basis.⁴² The reform of the Russian electricity sector has also led to the creation of a

36. Neuhoff & De Vries, *supra* note 7, at 264.

37. John Stern & John Cubbin, *Regulatory Effectiveness: The Impact of Regulation and Regulatory Governance Arrangements on Electricity Industry Outcomes* (London Business School, Working Draft, 2005), available at: <http://www.london.edu/facultyandresearch/research/docs/No56.pdf>; Mark A. Pollack, *Delegation, Agency, and Agenda Setting in the European Community*, 51 INT’L ORG. 99, 130 (1997); Paul Magnette, *The Politics of Regulation in the European Union, in REGULATION THROUGH AGENCIES IN THE EU: A NEW PARADIGM OF EUROPEAN GOVERNANCE 3* (Damien Geradin, Rodolphe Muñoz, Nicholas Petit eds., 2005); Giandomenico Majone, *Independent Agencies and the Delegation Problem: Theoretical and Normative Decisions, in POLITICAL INSTITUTIONS AND PUBLIC POLICY: PERSPECTIVES ON EUROPEAN DECISION MAKING 139* (Bernard Steunenberg & Frans van Vught eds., 1997); Fabrizio Gilardi, *Policy Credibility and Delegation to Independent Regulatory Agencies: A Comparative Empirical Analysis*, 9 J. EUR. PUB. POL’Y 873, 874 (2002); Anastasia K. Verra, *The Question of the National Regulatory Authorities’ Independence in the Telecommunications Sector*, 12 EUR. BUS. L. REV. 175, 176 (2001).

38. Directive 2009/72, *supra* note 16.

39. *Id.* at 81.

40. *Id.* The UK Government for instance considers that “independence enables Ofgem [the national energy regulator] to provide a stable regulatory environment for investors over the long term, important for securing investment in the UK as cost effectively as possible.” DEP’T OF ENERGY AND CLIMATE CHANGE, OFGEM REVIEW: FINAL REPORT 6 (2011), available at <http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/energy-markets/2151-ofgem-review-final-report.pdf>.

41. ERGEG, POSITION PAPER, *supra* note 34.

42. Anatole Boute, *The Modernisation of the Russian Electricity Production Sector – Regulatory Risks and Investment Protection* (Jan. 31, 2011) (unpublished Ph.D thesis, University of Groningen) (on file with the author); INT’L ENERGY AGENCY, *supra* note 29.

specialized regulatory authority: the Market Council. This authority is in charge of the regulation of and control over the wholesale market. In accordance with the Russian Federal Law on the Electric Power Industry, the Market Council functions as a “self-regulating entity.”⁴³ It is not formally integrated within the executive branch of the Government of the Russian Federation, but has, at least in theory, been created as an independent regulatory authority.

The Government of the Russian Federation has however retained considerable control over most pricing issues. The Government – and not the Market Council – decides to re-regulate electricity prices in case of unreasonable price increases.⁴⁴ The role of the Market Council for the regulation of electricity prices has been limited to the implementation of governmental orders. In addition, Russian electricity law has gradually reinforced the control of the Government of the Russian Federation over the Market Council. The Russian Ministry of Energy can veto the regulatory decisions of the Market Council. The Market Council cannot anymore be considered as being independent from the executive branch.⁴⁵

Investors in electricity production in Russia are thus exposed to Government interference with electricity prices based on short-term political interests.⁴⁶ The recent introduction by the Government of electricity price limits⁴⁷ in the context of the upcoming presidential elections in 2012 illustrates the political risks that electricity companies face in Russia.

B. *Types of Government Interference with Electricity Prices*

The liberalization of the electricity market is a gradual process, not a one-off event.⁴⁸ In the European Union, this process began in 1996, with the adoption of Directive 1996/92 Concerning Common Rules for the Internal Market in Electricity.⁴⁹ Directive 1996/92 was followed by the second and third liberalization “packages,”⁵⁰ which led to the third Internal Electricity Market Directive, Directive 2009/72. In Russia, the organization of the electricity market on a liberalized basis was preceded by a transition period – from 2003 until 2010 – during which regulated prices were gradually replaced by free

43. *Sobranie Zakonodatel'stva Rossiiskoi Federatsii* [SZ RF][Russian Federation Collection of Legislation] 2003, No. 13, Item 1177, [FZ][Russian Federal Law on the Electric Power Industry] 2003, No. 35, art. 33.

44. *Sobranie Zakonodatel'stva Rossiiskoi Federatsii* [SZ RF][Russian Federation Collection of Legislation] 2009, No. 47, Item 5667, [Government Decree on the Procedure for the Implementation of State Regulation in the Electricity Sector] 2009, No. 929, art. 1.

45. Boute, *supra* note 42, at 202.

46. Boute, *supra* note 42, at 214; INT'L ENERGY AGENCY, *supra* note 29, at 74.

47. *Sobranie Zakonodatel'stva Rossiiskoi Federatsii* [SZ RF][Russian Federation Collection of Legislation] 2010, No. 14, Item 1916, [Government Decree on the Wholesale Market Rules] 2010, No. 1172, art. 11.

48. EUROPEAN COMM'N, HIGH LEVEL GRP. ON COMPETITIVENESS, ENERGY AND THE ENVIRONMENT: FUNCTIONING OF THE ENERGY MARKET, ACCESS TO ENERGY, ENERGY EFFICIENCY AND THE EU EMISSIONS TRADING SCHEME (June 2, 2006) *available at* http://ec.europa.eu/enterprise/policies/sustainable-business/files/environment/hlg/doc_06/first_report_02_06_06_en.pdf.

49. Council & Parliament Directive 1996/92, 1996 O.J. (L 27) 20 (EC) [hereinafter Directive 96/92].

50. *See generally* Directive 2009/72, *supra* note 16 (Third Liberalization Package); *Proposal for a Directive of the European Parliament and of the Council Amending Directive 2003/54/EC Concerning Common Rules for the Internal Market in Electricity*, COM(2007) 528 final (Sept. 19, 2007).

market prices. Since January 2011, the Russian wholesale electricity market has functioned on the basis of its long-term model: electricity exchanges, in theory, must take place in accordance with the principle of free interaction between the forces of supply and demand.

Electricity production investments are based on different financial premises depending on the stage of advancement of the liberalization process. On the one hand, investments that are made in fully liberalized electricity markets rely on free market pricing to recover their investment and operating costs. As analyzed above, the financial basis of such investments consists in the expectation that, through the free market price formation mechanism, investors will be able to pass their costs on to consumers. On the other hand, for investments that are made just before or at the early stage of the liberalization process, states may provide guarantees of regulated prices. Companies may require such pricing certainty in order to invest during the early implementation phase of a reform process that inevitably generates regulatory instability. In Russia, for instance, investors that entered the market during the transition period are entitled to regulated capacity prices for a period of ten years to recover the investment costs of new power plants.⁵¹ Investments made at a later stage shall be recovered through free market prices.

Public interference with electricity prices differs depending on the type of pricing commitments made by the state to attract private capital in the electricity production sector. National authorities can interfere with pre-liberalization tariff commitments (*i.e.* with guarantees of regulated prices made by the state before fully opening the electricity market to competition). They can also interfere with electricity prices after the public regulation of prices has been abolished, thereby breaching states' commitment to reform the electricity sector on a free market basis. As will be analyzed below, the *AES v. Hungary* and *Total v. Argentina* cases illustrate these two types of interference with electricity prices. The *AES* and *Total* cases also illustrate the relevance of categorizing types of price interference for their assessment under international investment law.

Price interference can also be categorized in function of its impact on the financial viability of electricity production investments. This impact depends on the structure, severity, and duration of pricing measures. Price caps can limit the profit margin but allow the recovery of investment. More severe government interference can prevent investors from recovering their investment and operating costs. The former pricing measures can in the long-term harm security of electricity supply and thus consumer welfare, as they may discourage investments, but not as badly as caps too low to recover investments.

Moreover, price interference depends on what it applies to. Some kind of public interference with prices is inherent to the functioning of electricity markets. Indeed, dispatching of the electricity system at time of scarcity can have important implications on prices.⁵² According to Roques, the reliability standards and procedures used by the system operator can have "a large impact

51. Sobranie Zakonodatel'stva Rossiiskoi Federatsii [SZ RF] [Russian Federation Collection of Legislation] 2010, No. 16, Item 1922, [Decree on the Determination of Price Parameters for the Trade in Capacity] 2010, No. 238.

52. Roques, *supra* note 7, at 174-180. STEVEN STOFT, POWER SYSTEM ECONOMICS: DESIGNING MARKETS FOR ELECTRICITY 74-77, 108-119, 162-167 (Stamatios V. Kartalopoulos et al. eds., 2002).

on the ability of market prices to convey scarcity signals.”⁵³ In contrast to this subtle type of interference, the government can impose outright pricing measures. It can introduce caps on the price bids that the operators of power plants submit on the spot (day-ahead) market to sell the electricity they produce. It could also interfere with the prices upon which electricity suppliers and buyers agree in bilateral electricity sale-purchase contracts.

III. PROTECTION AGAINST GOVERNMENT INTERFERENCE

A. *Investment Treaties*

Investment treaties are signed and ratified by states on a bilateral (*e.g.*, the US-Argentina Bilateral Investment Treaty – BIT)⁵⁴ or multilateral basis (*e.g.*, the investment chapter of the Energy Charter Treaty – ECT – or the North American Free Trade Agreement – NAFTA).⁵⁵ By signing investment treaties, states commit to procedural and substantive standards with respect to the treatment of investors from other contracting states.⁵⁶ Procedural protection consists in foreign investors having the ability to directly sue the host state before independent international arbitral tribunals (so-called investor-state arbitration or investment arbitration). Based on most bilateral investment treaties, foreign investors can launch international arbitrations to seek the enforcement of their rights outside the jurisdiction of the host state. The substantive investment standards generally contained in investment treaties include protection against expropriation, national treatment, prohibition of discriminatory and arbitrary measures, and the provision of fair and equitable treatment.⁵⁷ These investment protection disciplines are part of public international law. By signing bilateral or multilateral investment treaties, states agree to respect them and to recognize the jurisdiction of independent arbitral tribunals where there are allegations of their violation. In exceptional circumstances, states can invoke a “state of necessity” to excuse breaches of international obligations.

The expropriation clause in international investment treaties protects foreign investors against the taking of their property by the host state without compensation.⁵⁸ It applies to direct and indirect expropriatory acts, *i.e.* to the “outright and overt taking of property”⁵⁹ and to measures that “affect property

53. Roques, *supra* note 7, at 180.

54. *See, e.g.*, Treaty Concerning the Reciprocal Encouragement and Protection of Investment, U.S. – Arg., Nov. 14, 1991, S. TREATY DOC. NO. 103-2, available at <http://www.state.gov/e/eeb/afd/43232.htm>.

55. *See, e.g.*, ENERGY CHARTER TREATY, *supra* note 9.

56. JESWALD W. SALACUSE, *THE LAW OF INVESTMENT TREATIES* 1 (2009).

57. For an overview of the investment protection standards of the Energy Charter Treaty, *see* Thomas W. Wälde, *Investment Arbitration Under the Energy Charter Treaty: An Overview of Key Issues*, 1 *TRANSNAT'L DISP. MGMT.* 1 (2004).

58. *See generally* Christoph H. Schreuer, *The Concept of Expropriation Under the ECT and Other Investment Protection Treaties*, in *INVESTMENT ARBITRATION AND THE ENERGY CHARTER TREATY* 108 (Clarisse Ribeiro ed., 2006) (writing on the concept of expropriation and its interpretation in arbitral practice).

59. Anne K. Hoffmann, *Indirect Expropriation*, in *STANDARDS OF INVESTMENT PROTECTION* 151 (August Reinisch ed., 2008).

interests in more subtle ways,”⁶⁰ such as regulatory acts that deprive foreign investors of the economic use and enjoyment of their investments or that neutralize the benefit of their property.⁶¹

The national treatment standard requires that host states treat foreign investors no less favorably than national investors that are in a comparable situation.⁶² Its content is determined in relation to the treatment accorded to similarly situated national players.⁶³ Its aim is to neutralize the tendency of governments to protect or favor domestic investors to the detriment of foreign players.⁶⁴ The national treatment obligation thus precludes host states from discriminating against foreign investors on the basis of nationality but offers no protection when national investors are also treated badly.⁶⁵ In contrast, the prohibition of discriminatory measures applies to all types of discriminatory treatment, independently from the basis of this treatment.⁶⁶ Both national treatment and the prohibition of discriminatory measures thus reflect the principle of non-discrimination but differ in their scope of application.

In contrast to national treatment and non-discrimination, the fair and equitable treatment clause provides for an absolute standard of investment protection, irrespective of the treatment accorded to other investors. Arbitral tribunals and commentators generally agree that fair and equitable treatment includes the respect for investors’ legitimate and reasonable expectations, stability and predictability of the legal framework, protection against arbitrariness and discrimination, and due process.⁶⁷ Given the stringent requirements laid down for the qualification of regulatory measures as being “tantamount to expropriation,” the fair and equitable standard “is currently the most promising standard of protection from the investor’s perspective.”⁶⁸ As will be argued below, it is also the standard with the “highest practical relevance”⁶⁹ for electricity investors’ claims against government interference with liberalized market prices.

The principle of the protection of investors’ legitimate and reasonable expectations is based on the need to enable foreign investors to make investment

60. Jan Paulsson & Zachary Douglas, *Indirect Expropriation in Investment Treaty Arbitrations*, in *ARBITRATING FOREIGN INVESTMENT DISPUTES: PROCEDURAL AND SUBSTANTIVE LEGAL ASPECTS* 145, 152 (Norbert Horn & Stefan Kröll eds., 2004).

61. *Compañía de Aguas del Aconquija S.A. v. Argentine Republic*, ICSID Case No. ARB/97/3, Award (Aug. 20 2007).

62. Andrea K. Bjorklund, *National Treatment*, in *STANDARDS OF INVESTMENT PROTECTION* 29 (August Reinisch ed., 2008); DOLZER & SCHREUER, *supra* note 10, at 179.

63. CAMPBELL MCLACHLAN, LAURENCE SHORE & MATTHEW WEINIGER, *INTERNATIONAL INVESTMENT ARBITRATION: SUBSTANTIVE PRINCIPLES* 239 (2008).

64. Bjorklund, *supra* note 62, at 29.

65. *Id.* at 31.

66. DOLZER & SCHREUER, *supra* note 10, at 176 (mentioning grounds such as race, religion, political affiliation and disability); *see also* BJORKLUND, *supra* note 62, at 34.

67. *See, e.g.*, IOANA TUDOR, *THE FAIR AND EQUITABLE TREATMENT STANDARD IN THE INTERNATIONAL LAW OF FOREIGN INVESTMENT* 154-180 (Oxford Univ. Press, 2008).

68. Christoph Schreuer, *Introduction: Interrelationship of Standards*, in *STANDARDS OF INVESTMENT PROTECTION* 1, 2 (August Reinisch ed., 2008).

69. DOLZER & SCHREUER, *supra* note 10, at 119.

decisions in reliance on the representations made by host states.⁷⁰ This principle requires the host state to observe the “basic expectations that were taken into account by the foreign investor to make the investment.”⁷¹ The concept of “legitimate expectations” relates, according to the *Thunderbird* Tribunal, to a situation where: “a Contracting Party’s conduct creates reasonable and justifiable expectations on the part of an investor (or investment) to act in reliance on said conduct, such that a failure by the [host state] Party to honor those expectations could cause the investor (or investment) to suffer damages.”⁷²

Expectations must therefore result from some overt and specific conduct of the host state.⁷³ They “cannot exclusively be determined by foreign investors’ subjective motivations and considerations,”⁷⁴ but must be based on “representations, commitments or specific conditions offered by the State concerned,”⁷⁵ and must be statements/conduct on which the investor relied when making its investment.⁷⁶ Arbitral tribunals pay particular attention to the conditions that the host state proposes and the promises it makes in order to attract foreign investors.

Acts of the state that may create legitimate expectations can consist in promises specifically directed towards an individual foreign investor. Moreover, legitimate expectations may result from general regulatory provisions.⁷⁷ According to Dolzer and Schreuer, “the legal framework provided by the host state will be an important source of expectations on the part of the investor.”⁷⁸ On the other hand, however, the state of the law is of equal significance for the host state as it limits the expectations that investors could have had at any given moment. Indeed, the fair and equitable treatment standard only protects investors’ expectations to the extent that these expectations are anchored in the host state’s domestic legal order. In Dolzer’s words: “[t]he pre-investment legal order forms the framework for the positive reach of the expectation which will

70. Christoph Schreuer & Ursula Kriebaum, *At What Time Must Legitimate Expectations Exist?*, in *A LIBER AMICORUM: THOMAS WÄLDE – LAW BEYOND CONVENTIONAL THOUGHT* 265 (Jacques Werner & Arif Hyder Ali eds., 2009); Wälde, *supra* note 57, at 5.

71. *Técnicas Medioambientales Tecmed S.A. v. The United Mexican States*, ICSID Case No. ARB (AF)/00/2, Award, ¶ 154 (May 29, 2003).

72. *Int’l Thunderbird Gaming Corp. v. The United Mexican States*, UNCITRAL, Award, ¶ 147 (Jan. 26, 2006), available at <http://italaw.com/documents/ThunderbirdAward.pdf>.

73. Elizabeth Snodgrass, *Protecting Investors’ Legitimate Expectations: Recognizing and Delimiting a General Principle*, 21 ICSID REV.: FOREIGN INV. L.J. 1, 35 (2006).

74. *Saluka Invs. BV (Neth.) v. The Czech Republic*, UNCITRAL, Partial Award, ¶ 304 (Mar. 17, 2006), <http://www.pca-cpa.org/upload/files/SAL-CZ%20Partial%20Award%20170306.pdf>.

75. *National Grid P.L.C. v. Argentine Republic*, UNCITRAL, Award, ¶ 173 (Nov. 3, 2008), <http://italaw.com/documents/NGvArgentina.pdf>.

76. *Técnicas Medioambientales*, ICSID Case No. ARB(AF)/00/2, Award, at ¶ 154.

77. *CMS Gas Transmission Co. v. The Argentine Republic*, ICSID Case No. ARB/01/8, Award, ¶ 275 (May 12, 2005); *BG Grp. Plc. v. Argentina*, UNCITRAL, ¶ 298 (Dec. 24, 2007), available at http://italaw.com/documents/BG-award_000.pdf; *Bayindir Insaat Turizm Ticaret Ve Sanayi A.S. v. Islamic Republic of Pakistan*, ICSID Case No. ARB/03/29, Award, ¶ 190 (Aug. 27, 2009); Stephan W. Schill, *Fair and Equitable Treatment Under Investment Treaties as an Embodiment of the Rule of Law* 1, 16 (NYU Law Sch. Int’l L. & Just. Working Paper No. 6, 2006), available at <http://www.iilj.org/publications/documents/2006-6-GAL-Schill-web.pdf>; DOLZER & SCHREUER, *supra* note 10, at 134; Stephen Fietta, *Expropriation and the ‘Fair and Equitable’ Standard: The Developing Role of Investors’ ‘Expectations’* in INTERNATIONAL INVESTMENT ARBITRATION, 23 J. INT’L ARB. 375, 389 (2006).

78. DOLZER & SCHREUER, *supra* note 10, at 104-105; SALACUSE, *supra* note 56, at 232.

be protected and also the scope of considerations upon which the host state is entitled to rely when it defends against subsequent claims of the foreign investor.”⁷⁹

Before investing, investors are therefore expected to carefully examine the specific implications of the regulatory framework that the host state proposes.⁸⁰ The host state, on the other hand, will be bound to respect the investment conditions that it has freely determined and on which basis investors have relied to make their investment decisions.⁸¹

Based on the necessity defense, arbitral tribunals may, in certain extraordinary situations, excuse host states from their liability under the investment treaty.⁸² Under customary international law, the defense of necessity can only be invoked if, first, there is “an essential interest against a grave and imminent peril” for the host state.⁸³ Second, the contested measures must have been the “only way” to safeguard its essential interest. Third, a state must not have contributed to the necessity situation.⁸⁴

B. Other Legal Protections

Protection under international investment treaties comes in addition to possible guarantees (*e.g.*, stabilization clauses) in the bilateral agreements that an investor can conclude with the host state (so called investment agreements). It also complements protection under the domestic law of the host state. Potential investment protection under national law includes the principle of legal certainty (including the principle of protection of legitimate expectations), the principle of sanctity of contracts,⁸⁵ as well as the protection of property rights.⁸⁶ In developing countries and transition economies, investors may also benefit from specific protection under national laws on foreign investment. These laws often contain comparable guarantees to the substantive international investment standards.

However, developing countries and transition economies are often characterized with weak administrative and institutional capacity and with a lack

79. Rudolf Dolzer, *Fair and Equitable Treatment: A Key Standard in Investment Treaties*, 39 INT'L LAW. 87, 103 (2005).

80. *Id.*; See also *Saluka Invs. BV (Neth.) v. The Czech Republic*, UNCITRAL, Partial Award, ¶ 301 (Mar. 17, 2006) (Dutch/Czech BIT) (stating that “[a]n investor’s decision to make an investment is based on an assessment of the state of the law and the totality of the business environment at the time of the investment”).

81. Dolzer, *supra* note 79, at 103.

82. Rep. of Int'l Law Comm'n, 53d Sess., U.N. Doc. A/56/10, *Draft Articles on the Responsibility of States for Internationally Wrongful Acts with Commentaries 2001*, Arts. 23, 25, available at http://untreaty.un.org/ilc/texts/instruments/english/commentaries/9_6_2001.pdf.

83. *Id.* at Art. 25.

84. *Id.*

85. *NRG Power Marketing, LLC v. Maine Pub. Utils. Comm'n*, 558 U.S. ___, 130 S. Ct. 693 (2010); *Morgan Stanley Capital Grp. v. Public Util. Dist. No. 1 of Snohomish Cnty.*, 554 U.S. 527 (2008); *United Gas Pipe Line Co. v. Mobile Gas Serv. Corp.*, 350 U. S. 332 (1956); *FPC v. Sierra Pacific Power Co.*, 350 U. S. 348 (1956).

86. For an analysis of the protection of electricity investors against government interference with prices on the basis of the right to property in Europe, see Anatole Boute, *The Protection of Property Rights Under the European Convention on Human Rights and the Promotion of Low Carbon Investments*, 1 CLIMATE LAW 93 (2010).

of respect for the rule of law.⁸⁷ Investors' protection under national law can be frustrated by the potential shortcomings of host countries' judicial systems. In developed countries, which often do not provide specific domestic guarantees to foreign investments, national legal guarantees may not always adequately protect investors in electricity production against illegitimate government interference with prices. Indeed, the threshold to amount to a violation of the general principles of legal certainty and the protection of property rights is high. Moreover, national courts may be reluctant to rule against the state because of the highly politicized nature and social importance of electricity supply. Given the limits of national mechanisms, this contribution focuses exclusively on investors' protection on the basis of international investment law.

IV. PUTTING PROTECTION TO THE TEST

A. *International Investment Arbitration and Electricity Production*

Several international arbitration cases concern investments in electricity production. Foreign investors in the electricity sector have for instance challenged the revocation of production licenses (operating permit),⁸⁸ changes to the tariff structure applicable to a power plant project,⁸⁹ the non-reimbursement of expenditures made in view of building a power plant,⁹⁰ the withdrawal of a preferential tariff (subsidy) for environmentally friendly power generation,⁹¹ and the lack of respect for payment arrangements under Power Purchase Agreements.⁹² These cases concern investments made in the context of electricity privatization programs. However only few cases directly concern government interference with price formation in liberalized electricity markets. This can be explained by the fact that both the liberalization of electricity markets and the development of international investment arbitration practice are relatively recent phenomena. As introduced above, in Europe, the first liberalization Directive dates from 1996.⁹³ Member states had to transpose it under national law before February 1999.⁹⁴ New member states that joined the European Union after that date had to implement the liberalization Directive when acceding to the Union or at a later stage, depending on their accession agreements. As regards the relatively recent development of investment

87. KLAUS SCHWAB ET AL, WORLD ECON. FORUM, THE GLOBAL COMPETITIVENESS REPORT 2009–2010 (2009), available at http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2009-10.pdf.

88. M.C.I. Power Grp. L.C. v. Republic of Ecuador, ICSID Case No. ARB/03/6, Award (July 31, 2007).

89. PSEG Global, Inc. v. Republic of Turkey, ICSID Case No. ARB/02/5, Award (Jan. 19, 2007) (U.S./Turkey BIT).

90. Mihaly Int'l Corp. v. Republic of Sri Lanka, ICSID Case No. ARB/00/2, Award (Mar. 15, 2002) (U.S./Sri Lanka BIT).

91. Nykomb Synergetics Tech. Holding AB v. The Republic of Latvia, Arbitration Inst. of the Stockholm Chamber of Commerce (ECT), Arbitral Award (Dec. 16, 2003), available at http://italaw.com/alpha/betical_list.htm.

92. Duke Energy Electroquil Partners & Electroquil S.A. v. The Republic of Ecuador, ICSID Case No. ARB/04/19, Award (Aug. 18, 2008); Noble Energy Inc. v. The Republic of Ecuador, ICSID Case No. ARB/05/12, Decision on Jurisdiction (Mar. 5, 2008) (U.S./Ecuador BIT).

93. Directive 96/92, *supra* note 49.

94. *Id.* at Art. 27.

arbitration, it must be noted that the amount of arbitration decisions has only started to grow since 2000.

The *AES v. Hungary* and *Total v. Argentina* cases provide recent examples of challenges by foreign investors in electricity production against regulatory measures that affect the price formation mechanism in reformed electricity markets.⁹⁵ These cases illustrate the two types of government interference with prices identified above: interference with pre-liberalization tariff commitments – in *AES v. Hungary* – and price interference in a reformed market environment – in *Total v. Argentina*.⁹⁶

B. *The AES v. Hungary Case*

1. The Facts

The *AES v. Hungary* case concerns an electricity production investment made in the context of the Hungarian power sector privatization before Hungary organized its electricity sector on a free market basis. In 1997, AES Summit, the first claimant, invested in electricity production installations, including two older coal-fired power plants controlled by AES Tisza, the second claimant.⁹⁷ AES Summit committed to modernize these power plants. Hungary, on the other hand, was to fulfill certain tariff obligations. In accordance with the investment agreement, prices for electricity sales “would provide [for] a ‘reasonable return’ on investment, which would ‘target’ returns in the general range of 8% on equity.”⁹⁸

The claimants did thus not make their investment on the basis of a liberalization commitment but on the basis of a promise to receive tariffs that would generate a “reasonable return” on investment. The claimants did not initially invest in a free market but in a regulated one. The issue of liberalization in the Hungarian electricity market only became relevant at a later stage when the parties renegotiated the financial conditions of the investment.

Following a dispute regarding the implementation of the initial investment agreement, AES and Hungary agreed in 2001 to conclude a new investment agreement and a new long-term Power Purchase Agreement. In these new agreements, AES confirmed its commitment to retrofit the power plants it had acquired, and Hungary agreed to new pricing obligations.⁹⁹

According to these new agreements, different obligations applied depending on the liberalization of the domestic electricity market. Indeed, to accede to the European Union, Hungary was required to open its electricity market to competition and organize it on a free-market basis in accordance with EU internal electricity market principles. The new pricing obligations to which Hungary committed provided that, “as long as the public utility generator prices

95. *AES Summit Generation Ltd. v. The Republic of Hungary*, ICSID Case No. ARB/07/22, Award (Sept. 23, 2010); *Total S.A. v. Argentine Republic*, ICSID Case No. ARB/04/1, Decision on Liability (Dec. 27, 2010).

96. *AES Summit*, ICSID Case No. ARB/07/22, Award; *Total*, ICSID Case No. ARB/04/1, Decision on Liability.

97. *AES Summit*, ICSID ARB/07/22, Award, at ¶ 4.3.

98. *Id.* ¶ 9.3.15.

99. *Id.* ¶ 4.10.

[were] subject to administrative pricing,” the claimants were entitled to receive specific prices fixed in published decrees by the Ministry of Economy.¹⁰⁰ “Following the termination of price administration of public utility generator prices” (*i.e.* following the liberalization of the market), the electricity produced by the claimants would be priced on the basis of a “detailed pricing formula.”¹⁰¹

“In 2004, Hungary acceded to the European Union.”¹⁰² Free market prices replaced the administrative pricing regime for electricity producers. At least for a time, the output of the power plants operated by the claimants was remunerated in accordance with the “detailed pricing formula” fixed in the new investment agreement. In turn, the claimants implemented a large part of the power plant modernization program as required by their investment obligations.¹⁰³

However, in 2005, the pricing of electricity became the subject of heated political debate. Politicians criticized the “excessive,” “unjustifiably high,” or “luxury profits” allegedly being earned by electricity generators.¹⁰⁴ Proposals were introduced to cap (or “knock down”) profits to an “acceptable” level.¹⁰⁵

In parallel, following accession to the EU, Hungary had to comply with EU state aid law. The EU Commission, as EU competition authority, exercised pressure to review long-term Power Purchase Agreements, such as the agreements initially concluded with the claimants.¹⁰⁶ Such long-term agreements were also considered to foreclose the electricity market from competition.

Eventually, in 2006, the Hungarian Parliament amended the electricity legislation by temporarily re-introducing a regime of administrative pricing for electricity.¹⁰⁷ Price Decrees determined fixed rates for the electricity output of the claimants’ power plants. Consequently, the “detailed pricing formula” was no longer applicable.

The claimants alleged that due to this new pricing regime they suffered price cuts of approximately 43%.¹⁰⁸ Due to the important investment costs already incurred in accordance with the modernization program, this seriously compromised the financial viability of their investments in the Hungarian electricity production sector. They therefore contended that the re-introduction of administrative pricing, after administrative pricing had been abolished, amounted to a violation of the investment protection standards of the Energy Charter Treaty.¹⁰⁹ In particular, they argued a breach of the fair and equitable treatment standard, the non-discrimination standard, the full protection and

100. *Id.* ¶ 4.11 (internal citation and quotation omitted).

101. *Id.* (internal citation and quotation omitted).

102. *Id.* ¶ 4.12.

103. *Id.* ¶ 4.13.

104. *Id.* ¶¶ 4.15-4.18, 9.1.5-9.1.7.

105. *Id.* ¶¶ 4.17-4.18.

106. *Id.* ¶¶ 9.2.13, 10.3.15.

107. *Id.* ¶ 1.10.

108. *Id.* ¶ 4.23.

109. *Id.* ¶ 4.1.

security standard, and the expropriation standard.¹¹⁰ The Tribunal rejected all these claims.¹¹¹

2. The Fair and Equitable Treatment Standard

In accordance with the generally accepted interpretation of the fair and equitable treatment standard by arbitral tribunals, the claimants in *AES v. Hungary* invoked a violation of this standard by arguing that Hungary frustrated the “legitimate and reasonable expectations” upon which they relied when making their investments.¹¹² They also argued that Hungary violated the fair and equitable treatment standard by breaching the requirement of stability and predictability of the regulatory framework.¹¹³

Hungary responded to the allegation that the new pricing regime frustrated the claimants’ legitimate and reasonable expectations by contending that “no legitimate expectations were created that administrative prices would never be re-introduced.”¹¹⁴

The Tribunal assessed the claimants’ allegation that the re-introduction of administrative pricing breached their legitimate and reasonable expectations by first determining “the time when ‘the investment was decided and made.’”¹¹⁵ The Tribunal considered that the claimants made their initial investment decision in 1996 when they decided to purchase AES Tisza shares in the context of the privatization program.¹¹⁶ In addition, the Tribunal recognized that the claimants made an investment decision in 2001 when they re-confirmed their commitment to invest in the modernization of the power plants purchased in 1996.¹¹⁷

As regards the initial investment decision, the Tribunal rejected any legitimate expectation related to the maintenance of free market prices. According to the Tribunal, the privatization materials and the relevant investment agreements were “explicit that Hungary would continue to set maximum administrative prices for electricity sales indefinitely into the future.”¹¹⁸ Concerning the expectations underlying the 2001 investment decision, the Tribunal concluded that:

Hungary made no representations/gave no assurances of a nature that go to the heart of Claimants’ complaint – *i.e.*, that following the termination of price administration on 31 December 2003, regulated pricing would not again be introduced. . . . In these circumstances, absent a specific commitment from Hungary that it would not reintroduce administrative pricing during the term of the 2001 PPA, Claimants cannot properly rely on an alleged breach of Hungary’s Treaty obligation to provide a stable legal environment¹¹⁹

110. *Id.* ¶ 5.1.

111. *Id.* ¶ 16.1.

112. *Id.* ¶ 9.1.4.

113. *Id.* ¶ 9.1.5.

114. *Id.* ¶ 9.2.4.

115. *Id.* ¶ 9.3.12.

116. *Id.* ¶¶ 9.3.13-9.3.16.

117. *Id.* ¶ 9.3.16.

118. *Id.* ¶ 9.3.15.

119. *Id.* ¶¶ 9.3.18, 9.3.25, 9.3.26, 9.3.31, 9.3.34.

3. Prohibition of Discriminatory and Arbitrary Measures

AES argued that by returning to regulated electricity prices, Hungary had acted in a discriminatory and arbitrary way.¹²⁰ This measure would not bear “a reasonable relationship to some rational policy,” such as competition, state aid concerns, or the reduction of “excessive” or “luxury” profits.¹²¹

Hungary defended the rational and non-discriminatory nature of its policy by arguing that the pricing measures were justified by the necessity to stimulate competition in the electricity market.¹²² Re-regulating prices was necessary to react to the refusal of the concerned electricity producers to reduce the amount of production capacity covered by the Power Purchase Agreements and to thereafter release this capacity for sale to the free market. Hungary thus tried to legitimize its intervention with electricity prices as a “transitional measure”¹²³ “pending full market liberalization.”¹²⁴

The majority of the *AES* Tribunal refused to endorse Hungary’s argument on the necessity to free up production capacity from Power Purchase Agreements to promote competition.¹²⁵ It considered that Hungary could not “use its governmental powers” with the specific objective “to force a private party to change or give up its contractual rights.”¹²⁶ If a state does not want to be further bound by its contractual obligations, it should “assume the contractual consequences of such early termination.”¹²⁷

The Tribunal however refused to consider the re-introduction of administrative pricing by Hungary as unreasonable by referring to Hungary’s concerns regarding excessive profit levels that some power producers were enjoying under the Power Purchase Agreements.¹²⁸ Moreover, the Tribunal considered that the new pricing regime limited the rate of return on the claimants’ investments to a reasonable level (7.1%), “taking into account [the] consistency [of this level] with the original returns [AES] earned at the time of its original investment [(8%)].”¹²⁹

4. Expropriation

Arguing that contractual rights can be subject to expropriation, AES submitted that, by re-introducing administrative prices, Hungary “expropriated substantial revenues which [it] had been contractually entitled to receive under the 2001 [Power Purchase Agreement].”¹³⁰

120. *Id.* ¶ 9.1.6.

121. *Id.* ¶ 10.1.1.

122. *Id.* ¶ 7.2.2.

123. *Id.* ¶ 9.2.14.

124. *Id.* ¶ 10.2.4.

125. *Id.* ¶ 10.3.14; *Id.* ¶ 10.3.19 (Stern, Arb., dissenting) (stating that “obstacles to liberalization” were, together with other concerns (*i.e.* state aid and high profits), targeted by the new pricing regime. The re-regulation of electricity prices thus constituted, in her view, a rational response to this legitimate policy concern.).

126. *Id.* ¶ 10.3.12.

127. *Id.*

128. *Id.* ¶ 10.3.34.

129. *Id.* ¶ 10.3.44.

130. *Id.* ¶ 14.1.1.

Hungary contended that “the doctrine of indirect expropriation” cannot be expanded so as “to cover acts which may lead to the temporary diminution of profits.”¹³¹ To amount to an expropriation, a state measure must deprive an investment of all meaningful value.¹³²

The Tribunal acknowledged that regulatory changes are probably the most common way for states to affect investments.¹³³ The Tribunal, however, considered that, in this case, AES retained control of its power plants, and continued to receive substantial revenues from its investment.¹³⁴ This “prove[d] that the value of [its] investment was not substantially diminished,” and AES could not therefore be said to have been deprived of the entire value of its investment.¹³⁵ The Tribunal thus concluded that “the reintroduction of [administrative pricing did] not amount to an expropriation.”¹³⁶

C. *The Total v. Argentina Case*

1. The Facts

The *Total v. Argentina* case concerns investments by the French company Total in the context of the Argentinean electricity production sector’s privatization. In contrast to *AES v. Hungary*, Total made its investments in a reformed market environment.¹³⁷ Electricity prices were to be determined on the “spot” market based on the variable costs of electricity production. To participate in the spot market, producers had to submit their variable costs to the market operator (power exchange) following specific procedures. The market operator calculated the electricity price on a marginal basis by selecting the least expensive power plants.¹³⁸ All producers that declared costs lower than those of the marginal unit (*i.e.* the unit that determined the spot price) were dispatched for electricity production.¹³⁹ For each hour, the electricity produced by all generators was remunerated at the same (marginal) spot price.¹⁴⁰

In addition to the price of electricity, the market structure provided for “capacity payments.” Such payments remunerated producers for the availability of their production installations to produce electricity at times of peak demand.¹⁴¹

According to Total, the Argentinean electricity market was to be organized in accordance with the “free-market rules of supply and demand.”¹⁴² Following

131. *Id.* ¶ 14.2.1.

132. *Id.*

133. *Id.* ¶ 14.3.1.

134. *Id.* ¶ 14.3.2, 14.3.3.

135. *Id.* ¶ 14.3.3.

136. *Id.* ¶ 14.3.4.

137. As will be explained below (Part V, A), Joskow considers that Argentina did not create a “real unregulated [*i.e.* liberalized] spot market for electricity” because electricity prices are mechanically determined on the basis of the costs of producers. Joskow, *supra* note 20, at 9.

138. *Total S.A. v. Argentine Republic*, ICSID Case No. ARB/04/1, Decision on Liability, ¶ 238 (Dec. 27, 2010).

139. *Id.* ¶ 260.

140. *Id.* ¶ 267.

141. *Id.* ¶ 268.

142. *Id.* ¶ 248.

the philosophy of Argentinean electricity law, prices were to be determined on the basis of the “economic cost of producing electricity.”¹⁴³ “[T]he state [had] a limited role as [regards] to the regulation of [electricity production] activities.”¹⁴⁴ In 2000, the economic situation of Argentina deteriorated considerably. The Argentinean authorities decided to introduce fixed price caps in the spot market and to freeze other electricity-related tariffs.¹⁴⁵

Total decided to initiate international arbitral procedures against these measures. It argued that, following the introduction of price caps, electricity prices were artificially reduced and thus “no longer reflect[ed] the economic cost of the system.”¹⁴⁶ Total claimed that, by altering the uniform marginal pricing mechanism, price caps were “[c]ontrary to sound market pricing theory.”¹⁴⁷ According to Total prices no longer “reflect the cost that unsupplied energy represents for the community.”¹⁴⁸ Total claimed that “prices no longer promote long-term investments to satisfy future demand,” in particular during periods of peak consumption.¹⁴⁹ Total invoked a breach of the investment standards contained in the France-Argentina Bilateral Investment Treaty.¹⁵⁰

2. The Fair and Equitable Treatment Standard

Total invoked the fair and equitable treatment standard against Argentina’s introduction of price caps in the competitive segment of the electricity market. Total argued that Argentina’s electricity law contained specific free market pricing promises on which it relied when making its investment. “The administration’s failure to comply with [this legal commitment] frustrated Total’s reasonable and legitimate expectations.”¹⁵¹

Argentina denied that, by introducing price caps, it had breached Total’s reasonable and legitimate expectations.¹⁵² According to Argentina, “[a] foreign investor must anticipate that circumstances may change.”¹⁵³ Moreover, the electricity law did not stipulate specific pricing and stability commitments.¹⁵⁴

The Tribunal followed Argentina’s reasoning and denied the existence of legitimate free market pricing expectations.¹⁵⁵ According to the Tribunal, the free market pricing rules were not “the object of a [specific] ‘promise’ by Argentina . . . on which Total was entitled to rely . . . as a matter of international law.”¹⁵⁶ Indeed, the pricing rules, and more generally the regulation of the

143. *Id.*

144. *Id.*

145. *Id.* ¶ 286.

146. *Id.* ¶ 291.

147. *Id.*

148. *Id.* ¶ 292.

149. *Id.*

150. Agreement on the Reciprocal Promotion of Investments, Fr-Argentina, July 3, 1991, 1728 U.N.T.S. 298, available at http://untreaty.un.org/unts/120001_144071/13/2/00010337.pdf.

151. *Total*, ICSID Case No. ARB/04/1, Decision on Liability, at ¶ 297.

152. *Id.* ¶ 301.

153. *Id.*

154. *Id.*

155. *Id.* ¶ 310.

156. *Id.*

electricity market, were “of a general nature, organizing a certain public interest sector in which private companies operate and setting forth the conditions of their operations.”¹⁵⁷ In a similar way to the *AES* Tribunal, the Tribunal in *Total v. Argentina* considered that “[n]o guarantee of stability was included in those provisions.”¹⁵⁸ The Tribunal concluded on this basis that “the changes made in the pricing structure, including specific parameters, [were] not *per se* in breach of promises or legitimate expectations of the investors.”¹⁵⁹

Nonetheless, the Tribunal ruled that the introduction of price caps violated the fair and equitable treatment standard by breaching the “economic equilibrium principle” governing electricity markets. According to this principle, electricity prices should “reflect the economic cost of the system.”¹⁶⁰

On this basis, the Tribunal considered that the Argentinean electricity market was “characterized by unreasonably low” tariffs (amounting to 20% of electricity prices “in Germany, less than one third of those in France and the U.K.[,] and less than half of those in the US” in 2004).¹⁶¹ Such “unreasonably” low prices “massively reduced the returns of the [electricity producers], barely permitting them to recover their [operating] costs.”¹⁶² This, according to the Tribunal, negatively affected security of electricity supply. Indeed, on the one hand, low prices stimulated electricity consumption. On the other hand, these prices did not enable new investments in electricity production to meet the higher demand.¹⁶³

3. The Defense of Necessity

Having concluded that Argentina’s introduction of price caps violated the fair and equitable treatment standard, the Tribunal examined whether this breach of the applicable investment treaty could be justified by the economic and social crisis that affected Argentina at that time.

The Tribunal considered that Argentina could not successfully invoke the defense of necessity to justify the introduction of price caps that prevent producers from recovering their costs and earning a reasonable return on investment.¹⁶⁴ As mentioned above, states can only invoke the defense of necessity if the contested measures are the “only way” to safeguard an essential public interest. According to the Tribunal, price caps “were in no way necessary to safeguard Argentina’s security interests in preserving its people and security of energy supply.”¹⁶⁵ Indeed, the Tribunal ruled that “unreasonably low tariff[s] . . . encouraged a substantial increase in [electricity] consumption that could not be covered.”¹⁶⁶ The price caps thus “caused shortages in supply of electricity and power cuts to the detriment of the entire population . . . , exactly

157. *Id.* ¶ 312.

158. *Id.*

159. *Id.*

160. *Id.* ¶ 327.

161. *Id.* ¶ 328, ¶ 328 n.449.

162. *Id.*

163. *Id.*

164. *Id.* ¶ 345.

165. *Id.*

166. *Id.*

the opposite of safeguarding ‘an essential interest against a grave and imminent peril.’”¹⁶⁷ Moreover, according to the Tribunal, “alternatives not in breach of [investment treaty law], such as targeted subsidies, were available.”¹⁶⁸

V. ANALYSIS

A. *The Protection of Investors’ Free Market Pricing Expectations*

One of the core issues of the *AES* and *Total* cases was whether the re-introduction of administrative prices in a liberalized market environment breached the claimants’ legitimate expectations and so violated the fair and equitable treatment standard. As explained above, both tribunals rejected this claim.

These decisions could, at first sight, be seen as problematic for future claims by foreign investors against the interference of public authorities with liberalized electricity prices. From a superficial examination of the awards, the tribunals’ rejection of these claims appears to limit the relief that investment arbitration could offer to investors’ concerns in relation to preserving regulatory stability in a liberalized market environment. However, as far as the *AES* Award is concerned, such a pessimistic conclusion would ignore the fundamental characteristics of the claimants’ investments. It is essential to look at the application of the fair and equitable treatment clause by the *AES* Tribunal in the context of the facts of the case.

As highlighted above, the claimants in *AES* did not make their investments on the basis of a promise that there would be liberalization. Their initial investment decision (in 1996) was based on commitments from the Government that regulated tariffs would apply in long-term Power Purchase Agreements.¹⁶⁹ Furthermore, when the claimants and the state renegotiated their agreements in 2001, they agreed on a “detailed pricing formula” that would apply following the organization of the electricity market on a free market basis.¹⁷⁰ In accordance with the timetable of the national Electricity Act applicable at that time, the parties knew that liberalization would occur at the end of 2003 and that, consequently, the “detailed pricing formula” would apply from that moment. Liberalization was not, however, a fundamental aspect of the claimants’ decision to invest in electricity production. On the contrary, the claimants benefited from a specially regulated pricing regime that shielded them from competition. For this reason, they could not legitimately argue that the introduction of free market prices was a “legitimate expectation[] upon which they relied when making their investment,”¹⁷¹ nor could they argue that the re-introduction of administrative pricing breached this expectation.

Confusion might arise from the *AES* Award though. This is because, in its assessment of the claimants’ allegation that the re-introduction of administrative prices breached their free market pricing expectations, the Tribunal failed to note

167. *Id.*

168. *Id.*

169. *AES Summit Generation Ltd. v. The Republic of Hungary*, ICSID Case No. ARB/07/22, Award, ¶¶ 9.3.13 - 9.3.16 (Sept. 23, 2010).

170. *Id.* ¶¶ 4.11, 4.13.

171. *Id.* ¶ 9.3.6.

that the claimants did not invest on the basis of a promise of liberalization. It did not stress that Hungary never committed to organize the electricity market on a free market basis to attract the claimants' investments. Instead, the Tribunal concluded that re-regulating electricity prices did not breach the claimants' expectations because Hungary "made no representations/gave no assurances . . . that following the termination of price administration . . . , regulated prices would not again be introduced."¹⁷² "[T]he [t]ribunal observe[d] that no specific commitments were made by Hungary that could limit its sovereign right to change its law (such as a stability clause) or that could legitimately have made the investor believe that no change in the law would occur."¹⁷³ What was thus decisive in the Tribunal's reasoning was the absence of "a specific commitment from Hungary that it would not reintroduce administrative pricing."¹⁷⁴

The Tribunal in *Total* adopted a similar conclusion by requiring a specific "guarantee of stability."¹⁷⁵ This conclusion is more problematic for the protection of investors in electricity production because, in contrast to the *AES* case, the claimants in *Total* made their investments after administrative (centrally regulated) prices had been abolished.

For investors in liberalized electricity markets, the requirement to demonstrate that the state "specifically committed" to refrain from re-regulating prices appears to be almost insurmountable. Indeed, national laws regulating the functioning of liberalized electricity markets normally do not contain explicit prohibitions on the future re-regulation of electricity prices or prohibitions on interference by public authorities in the electricity price formation mechanism.¹⁷⁶ In general, these laws only provide for the recognition of free market price formation as a fundamental principle underlying the organization of the electricity market. In Europe, the Internal Electricity Market Directive¹⁷⁷ does not even mention the free market principle explicitly. Free market price formation is instead implied by the general philosophy of the internal electricity market.¹⁷⁸ If a strict interpretation of the *AES* and *Total* awards is followed,

172. *Id.* ¶ 9.3.18.

173. *Id.* ¶ 9.3.31.

174. *Id.* ¶ 9.3.34.

175. *Total S.A. v. Argentine Republic*, ICSID Case No. ARB/04/1, Decision on Liability, ¶ 312 (Dec. 27, 2010).

176. In Europe, for instance, neither Directive 2009/72, 2009 O.J. (L 211) 55 (EC), nor Directive 2005/89, 2006 O.J. (L33) 22, explicitly forbid state interventions with price formation on the wholesale market.

177. Directive 2009/72, *supra* note 16.

178. See, e.g., Case C-265/08, *Federutility & others v. Autorità per l'energia elettrica e il gas*, 2010 E.C.R. 00000, ¶ 18 (Apr. 20, 2010), available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:62008J0265:EN:NOT>, where the Court considered that:

[a]lthough it is not explicitly stated in [Article 23(1)c of Directive 2003/55 on the Internal Gas Market], or indeed in any other provisions of that directive, that the price for the supply of natural gas must, as from 1 July 2007, be determined solely by the operation of supply and demand, that requirement follows from the very purpose and the general scheme of that directive, which, as its 3rd, 4th and 18th recitals state, is designed progressively to achieve a total liberalisation of the market for national gas in the context of which, in particular, all suppliers may freely deliver their products to all consumers.

Given that very similar principles apply to the European gas and electricity markets, the same reasoning would apply to the liberalization of the electricity market in Europe. Moreover, it must be noted that the European Commission has launched proceedings against Member States that persist in adopting regulated prices. Press

investors subject to substantial interference with electricity prices will only in very exceptional cases be able to successfully invoke a breach of their free market pricing expectations.

It must however be noted that the idea of “specific commitments” or “guarantees of stability” as a requirement for the creation of legitimate expectations is rather unusual in arbitral practice and possibly out of line with previous cases. To identify legitimate investors’ expectations, arbitral tribunals pay particular attention to the conditions that the host state proposed and the promises it made in order to attract foreign investors.¹⁷⁹ They also consider whether investors effectively relied upon these specific conditions and promises to make their investment decisions.¹⁸⁰ With the notorious exception of the *Parkerings Award*,¹⁸¹ arbitral tribunals do usually not require explicit stabilization agreements in order to recognize the legitimacy of investors’ expectations. The principle of legitimate expectations is not limited to negative commitments by the state, *i.e.* promises that it would refrain from a certain behavior. It also includes positive commitments, *i.e.* promises by the state to act in a certain way. According to Reisman and Arsanjani: “[w]here a host [s]tate which seeks foreign investment acts intentionally, so as to create expectations in potential investors with respect to particular treatment or comportment, the host state should . . . be bound by the commitments and the investor is entitled to rely upon them in instances of decision.”¹⁸²

In *CME*, for instance, the Tribunal considered that the host state “breached its obligation of fair and equitable treatment by eviscerations of the arrangements in reliance upon [which] the foreign investor was induced to invest.”¹⁸³ In

Release , RAPID, EUROPA, The Commission Takes Action Against Member States Which Have Not Opened Up Their Energy Markets Properly (Apr. 4, 2006) *available at* <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/430&language=en>; SAMI ANDOURA, LEIGH HANCHER & MARC VAN DER WOUDE, POLICY PROPOSAL BY JACQUES DELORS - TOWARDS A EUROPEAN ENERGY COMMUNITY: A POLICY PROPOSAL 41, 88 (2010).

179. The *LG&E* Tribunal considered that:

investor’s fair expectations have the following characteristics: they are based on the conditions offered by the host State at the time of the investment; they may not be established unilaterally by one of the parties; they must exist and be enforceable by law; in the event of infringement by the host State, a duty to compensate the investor for damages arises except for those caused in the event of state of necessity; however, the investor’s fair expectations cannot fail to consider parameters such as business risk or industry’s regular patterns.

LG&E Energy Corp. v. Argentine Republic, ICSID Case No. ARB/02/1, Decision on Liability, ¶ 130 (Oct. 3, 2006).

180. Mohammad Ammar Al-Bahloul v. Republic of Tajikistan, Case No. V (064/2008), Partial Award on Jurisdiction and Liability, ¶ 139 (Arbitration Inst. of the Stockholm Chamber of Commerce 2009).

181. *Parkerings-Compagniet AS v. Republic of Lithuania*, ICSID Case No. ARB/05/8, Award, ¶¶ 334-336 (Sept. 11, 2007). *See, e.g.*, PETER D. CAMERON, INTERNATIONAL ENERGY INVESTMENT LAW: THE PURSUIT OF STABILITY 215 (2010) (arguing that even the *Parkerings Award* seems to include “other forms of promise or guarantee than a stabilization clause” under the fair and equitable treatment standard).

182. W. Michael Reisman & Mahnoush H. Arsanjani, *The Question of Unilateral Governmental Statements as Applicable Law in Investment Disputes*, in COMMON VALUES IN INTERNATIONAL LAW: ESSAYS IN HONOUR OF CHRISTIAN TOMUSCHAT 409, 422 (Pierre-Marie Dupuy et al. eds., 2006).

183. *CME Czech Republic B.V. v. The Czech Republic*, 9 ICSID Rep. 121, Partial Award, ¶ 611 (Sept. 13, 2001); *Técnicas Medioambientales Tecmed S.A. v. Mexico*, ICSID Case No. ARB(AF)/00/2, Award, ¶ 154 (May 29, 2003); *Eureko B.V. v. Republic of Poland*, Partial Award, ¶ 235 (*Ad Hoc* Aug. 19, 2005) (Neth./Pol.

Glamis Gold, the Tribunal specified that a breach of the fair and equitable treatment standard may be exhibited through “the creation by the State of objective expectations *in order to induce* investment and the subsequent repudiation of those expectations.”¹⁸⁴ In *CMS*, the Tribunal added that “the guarantees given in . . . the legal framework . . . were crucial for the investment decision.”¹⁸⁵

The attention given by the *AES* Tribunal to “specific commitments” regarding the re-regulation of electricity prices must be understood in the context of the claimants’ investment on the basis of regulated tariffs. In the *AES* case, the liberalization of the electricity market only influenced how the regulated tariffs that applied to the claimants would be calculated. It did not constitute the regulatory and financial foundation of the claimants’ investments.

In contrast, it is more difficult to understand the requirement of specific “guarantees of stability” introduced by the *Total* Tribunal given that Total invested in a reformed electricity market. A possible reason for the restrictive interpretation of the fair and equitable treatment standard in *Total v. Argentina* could be that the Tribunal decided to rule in favor of the claimants by introducing a new principle: the “economic equilibrium principle” governing electricity markets.¹⁸⁶ In the Tribunal’s reasoning, what is paramount is that the pricing system should respect the “economic equilibrium principle” in accordance to which generators shall be allowed “to cover their costs and make a reasonable return on their investment.”¹⁸⁷ Whether this equilibrium is achieved with free market prices or other regulated pricing systems is less relevant. In addition, it is important to recall that prices on the spot market in Argentina were determined on a “cost” basis. According to Joskow, “Argentina did not have a real unregulated spot market for electricity.”¹⁸⁸ Instead, Argentina organized a “security-constrained marginal cost-based power pool in which the clearing price is determined mechanically by the marginal cost of the generator that clears the market.”¹⁸⁹

Despite the reasoning of the Tribunal in *Total v. Argentina*, it is arguable that companies that invest in reliance on a promise of liberalization should be entitled to successfully invoke a free market pricing expectation against the introduction of price caps or the re-regulation of electricity prices. As mentioned above, states often opt for liberalization policies as a mechanism to attract investment in the electricity sector. This policy objective has, for instance, clearly been acknowledged by the Russian authorities in the context of the

BIT), available at <http://italaw.com/documents/Eureko-PartialAwardandDissentingOpinion.pdf>; National Grid plc v. The Argentine Republic, UNCITRAL, Decision on Jurisdiction, ¶ 173, (June 20, 2006).

184. *Glamis Gold, Ltd. v. United States of America*, UNCITRAL, Award, ¶¶ 620–621, 627 (June 8, 2009) (emphasis in original).

185. *CMS Gas Transmission Co. v. The Argentine Republic*, ICSID Case No. ARB/01/8, Award, ¶ 275 (May 12, 2005).

186. *Total S.A. v. Argentine Republic*, ICSID Case No. ARB/04/1, Decision on Liability, ¶ 327 (Dec. 27, 2010).

187. *Id.*

188. Joskow, *supra* note 20, at 9.

189. *Id.*

reform of the Russian electricity market.¹⁹⁰ In such a scenario, market players commit huge amounts of capital in the belief that the sector will be organized on a free market basis and that they will therefore be allowed to recover their investment and operating costs through free market prices. In the context of the reform of the Russian electricity sector, the then CEO of E.ON – the biggest foreign investor in power production in Russia – highlighted that “[t]he liberalisation of the [electricity] market was one of the major factors behind our decision to make serious investments in [the Russian electricity sector].”¹⁹¹ By the same token, the CEO of the former Russian electricity monopoly and mastermind of Russian electricity reform – Mr. Chubais – stated that: “there is the timetable for the liberalization of the electricity market. As a matter of fact, we received the investments precisely because the purchasers [of the generating companies] believed in this timetable. . . . Retracting from this is more or less the same as pulling out the foundations of a building.”¹⁹²

It is arguable that in such scenario no “specific commitments” are needed that “following the termination of price administration, regulated prices would not again be introduced.”¹⁹³ Indeed, regulated prices are a fundamental contradiction of the concept of liberalization. According to economic theory, liberalization is the organization of the electricity market on a free market basis so that the forces of supply and demand (the “invisible hand” of the market) may determine the optimal investment equilibrium and so improve the efficiency of the sector.¹⁹⁴ In *AES*, Hungary agreed that: “there were rational and legal reasons why administrative price regulations could not be continued in 2008,

190. Sobranie Zakonodatel'stva Rossiiskoi Federatsii [SZ RF][Russian Federation Collection of Legislation] 2001, No 29, item 3032 [Decree of the Government of the Russian Federation on the Restructuring of the Electric Power Industry of the Russian Federation] 2001, No. 526. Chapter I of this Decree (as translated by the present author) considers for instance that

the amelioration of the investment climate in the electricity sector [is] not possible without transforming the existing structures of economic relations and implementing a structural reform of the electricity sector. . . . The strategic task of the reform is the reorganization of [this] sector . . . on the basis of the introduction of market principles.

Moreover, Sobranie Zakonodatel'stva Rossiiskoi Federatsii [SZ RF][Russian Federation Collection of Legislation] 2003, No 13, item 1177 [FZ][Russian Federal Law on the Electric Power Industry] 2003, No. 35, art. 30 ¶ 2, 32, 1, recognizes the free interaction between the market parties as a fundamental principle underlying the organization of the wholesale market.

191. GOV'T. OF THE RUSSIAN FED'N, TRANSCRIPT OF PRIME MINISTER VLADIMIR PUTIN'S MEETING WITH CHAIRMAN OF THE BOARD OF MGMT OF E.ON AG WULF H. BERNOTAT, *available at* <http://www.government.ru/eng/docs/2587/> (last visited Sept. 15, 2011). On the importance of the liberalization commitment for FORTUM, another major foreign investor in the Russian electricity market, *see generally* TAPIO KUULA, FORTUM, FORTUM IN RUSSIA 21 (June 4, 2007), *available at* http://www.fortum.com/Lists/ArchiveLibraryList/Capital%20Markets%20Day%202007/CMD_2007_Kuula.pdf (last visited Sept. 15, 2011). Kuula considers that a “[f]unctioning wholesale market with free price formation is the most important factor in securing needed investments and reform success.” *Id.*

192. Ilya Bulavinov, *Kak ni stranno, est' sfery, kotorye ne nado privatizirovat'* – Glava RAO 'EES Rossii' Anatolii Chubais ob itogakh reform energokholdinga I svoem otnoshenii k goskorporatsiiam [Ironically, There are Spheres that Do Not Need to Be Privatized], *KOMMERSANT* (Jun. 30 2008), <http://www.kommersant.ru/Doc/907641> (last visited Sept. 15, 2011) (translated by the present author).

193. *AES Summit Generation Ltd. v. The Republic of Hungary*, ICSID Case No. ARB/07/22, Award, ¶ 9.3.18 (Sept. 23, 2010).

194. *Commission Proposal*, *supra* note 18, at 4.

because it was contrary to the notion of full liberalization which had been introduced by the 2001 Electricity Act.”¹⁹⁵

A state, which announces an electricity market liberalization policy, per se creates a legitimate investor expectation that the market will be organized on a free market basis. Given the fundamental incompatibility of regulated prices with the notion of liberalization, electricity companies can reasonably expect to be allowed to charge free market prices, without an additional commitment from the state that it will refrain from interfering with the price formation mechanism or without “specific commitment” of regulatory stability.

In line with the *CME*, *Glamis Gold*, and *CMS* awards cited above, interference with this free market expectation could amount to a violation of the principle of legitimate expectations and, accordingly, to a breach of the fair and equitable treatment standard. As illustrated by the reform of the Russian electricity market, states can promise to organize the electricity market on a free market basis “in order to induce investments” in electricity production.¹⁹⁶ As highlighted by the abovementioned statements of investors in Russian electricity production, companies consider this promise to liberalize the market as “crucial for the [ir] investment decision.”¹⁹⁷ The re-introduction of regulated prices fundamentally contradicts the basic idea of electricity market liberalization. It is therefore arguable that, for investors that committed capital on the basis of a liberalization promise, the re-regulation of electricity prices could breach the fair and equitable treatment due to “evisceration[s] of the arrangements in reliance upon which the foreign investor was induced to invest.”¹⁹⁸

The legitimacy of investors’ free market pricing expectations will ultimately depend on the regulatory and contractual framework which the host state created or promised to create in order to attract investments in electricity production. As introduced above, the pre-investment legal order does not only establish the positive reach of investors’ expectation. It also determines “the scope of considerations upon which the host state is entitled to rely when it defends against subsequent claims of the foreign investor.”¹⁹⁹

195. *AES Summit*, ICSID Case No. ARB/07/22, Award, at ¶ 9.2.14. Along the same line, the French Constitutional Court ruled that the application of regulated tariffs to non-household consumers was in contradiction with the objective of liberalization of the electricity market established by the now repealed Directive 2003/54, art. 3, 2003 O.J. (L 176) 37 (EC) (similar to Directive 2009/72 art. 3, (L211) 55 (EC)). Conseil constitutionnel [CC] [Constitutional Court] decision No. 2006-534DC, Nov. 30, 2006, J.O. 18544 (Fr.) (“[L]oi relative au secteur de l’énergie”). On the evaluation of the “reasonable” nature of electricity prices from a civil law perspective, see District Court Münster July 13, 2010, Judgment 06 S 70/09, Keine Billigheitskontrolle von Tarifierhöhungen auf dem Liberalisierten Strom und Gasmarkt [No Fairness Control of Tariff Increases on Deregulated Electricity and Gas Markets], 6 ZEITSCHRIFT FÜR NEUES ENERGIERECHT 609, 610, 2010 (Ger.) (refusing to second-guess price increases in the context of a contractual relation between an electricity supplier and consumer based on the reasoning that the consumer had the possibility to switch supplier).

196. *Glamis Gold, Ltd. v. United States of America*, UNCITRAL, Award, ¶¶ 620–621, 627 (June 8, 2009).

197. *CMS Gas Transmission Co. v. Argentine Republic*, ICSID Case No. ARB/01/8, Award, ¶ 275 (May 12, 2005).

198. *CME Czech Republic B.V. v. The Czech Republic*, 9 ICSID Rep. 121, Partial Award, ¶ 611 (Sept. 13, 2001).

199. Dolzer, *supra* note 79, at 103.

In this respect, investors' free market pricing expectations may in some cases be limited by the regulatory framework governing the liberalization of the electricity sector. The European Internal Electricity Market Directive, for instance, entitles Member States to introduce special pricing regimes to protect consumers.²⁰⁰ It establishes the right of consumers to be supplied with electricity at "reasonable prices."²⁰¹ By the same token, the Russian Federal Law on the Electric Power Industry provides for the protection of consumers against "unreasonable increases of electricity prices" and considers the "economic well-founded nature" of electricity prices as a fundamental principle of Russian electricity law.²⁰² By announcing the possibility of price interference, such provisions, to a certain extent, limit the expectation of private investors that price formation would be entirely left to the "invisible hand" of the market. There will also be a regulatory role.

Nevertheless, the grounds on which such interference may take place are generally limited. In Europe, as well as in Russia, the competent public authorities do not have the unlimited right to interfere with the electricity market. As will be seen below, this right to interfere with electricity prices applies in the case of a malfunction within the market because of a structural reason (e.g., in the absence of competition).

In other situations, interference with electricity prices would fundamentally contradict the free market principle underlying the liberalization process. In a free market environment, public authorities cannot abuse the principles of the "economic well-founded nature of prices," or the protection of consumers against "unreasonable" price increases. Electricity producers cannot on the basis of these principles be prevented from reflecting their costs in the price of electricity. Indeed, following the principle advanced by the *Tecmed* Tribunal, investors expect "the State to use the legal instruments that govern the actions of the . . . investment in conformity with the function usually assigned to such instruments."²⁰³ If the state announces the creation of a liberalized market to induce private investments, it cannot, once investments have been made, replace free market prices with regulated prices. Regulated prices are at odds with the usual meaning of (or the "function usually assigned to") "liberalization." Re-regulating electricity prices would thus frustrate the expectations of investors that have committed capital on the basis of a liberalization commitment.

B. Investor v. Consumer Protection: the Delicate Assessment of "Reasonable" Prices

The protection of investors' legitimate expectations and the requirement of legal stability are not absolute. As the *AES* Tribunal recalled, "[a] legal framework is by definition subject to change as it adapts to new circumstances day by day and a state has the sovereign right to exercise its powers which

200. Directive 2009/72, *supra* note 16, at 64 (regulating the "Public Service Obligations" in the electricity sector).

201. *Id.* at arts. 3(3), recitals 42, 45, 50.

202. [FZ][Russian Federal Law on the Electric Power Industry] 2003, No. 35, art. 20; Boute, *supra* note 42, at 214.

203. *Técnicas Medioambientales Tecmed S.A. v. The United Mexican States*, ICSID Case No. ARB(AF)/00/2, Award, ¶ 154 (May 29, 2003).

include legislative acts.”²⁰⁴ Arbitral tribunals have consistently acknowledged the sovereign right of the host state to regulate. In *Saluka*, the Tribunal confirmed that:

[n]o investor may reasonably expect that the circumstances prevailing at the time the investment is made remain totally unchanged. In order to determine whether frustration of the foreign investor’s expectations was justified and reasonable, the host State’s legitimate right subsequently to regulate domestic matters in the public interest must be taken into consideration as well.²⁰⁵

There can be no doubt that a state has a legitimate right to protect consumers against high electricity prices for social or economic reasons.

Determining whether there has been a breach of the fair and equitable treatment standard requires weighing the investors’ legitimate and reasonable expectations against the legitimate regulatory interests of the host state.²⁰⁶ This balancing²⁰⁷ (or proportionality)²⁰⁸ test requires the host state to demonstrate that their regulatory intervention is “reasonably justifiable by public policies.”²⁰⁹ Can public interference with liberalized electricity prices reasonably be justified by social or economic policies, taking into account the legitimate expectations of investors in a liberalized market?

The *AES* case did not primarily concern an intervention by the state to shield consumers from high electricity prices, although this was also a reason advanced by the authorities when re-introducing administrative prices.²¹⁰ In contrast, the *AES* case concerns price measures that were introduced in order to tackle high profits. Hungary’s price intervention was a way to reduce the gains made by electricity producers. It was not a measure to protect consumers against socially, economically, or politically “unacceptable” prices. Despite the focus on profits and not on prices, the Tribunal’s assessment of the reasonable nature of this measure remains interesting for the evaluation of state interventions that are aimed at protecting consumers against high prices.

204. *AES Summit Generation Ltd. v. The Republic of Hungary*, ICSID Case No. ARB/07/22, Award, ¶ 9.3.29 (Sept. 23, 2010).

205. *Saluka Invs. BV (Neth.) v. The Czech Republic*, UNCITRAL, Partial Award, ¶ 305 (Mar. 17, 2006) (Dutch/Czech BIT); *Continental Cas. Co. v. Argentine Republic*, ICSID Case No. ARB/03/9, Award, ¶ 258 (Sept. 5, 2008) (annulment proceeding ongoing), considering that:

it would be unconscionable for a country to promise not to change its legislation as time and needs change, or even more to tie its hands by such a kind of stipulation in case a crisis of any type or origin arose. Such an implication as to stability in the BIT’s Preamble would be contrary to an effective interpretation of the Treaty; reliance on such an implication by a foreign investor would be misplaced and, indeed, unreasonable.

206. *Saluka Invs. BV (Neth.)*, UNCITRAL, Partial Award, at ¶ 306; MCLACHLAN, SHORE & WEINIGER, *supra* note 63, at 239; Schill, *supra* note 77, at 13, 17; Katia Yannaca-Small, *Fair and Equitable Treatment Standard: Recent Developments*, in STANDARDS OF INVESTMENT PROTECTION 111, 126-127 (August Reinisch ed., 2008).

207. Snodgrass, *supra* note 73, at 45.

208. Yannaca-Small, *supra* note 206, at 126.

209. *Saluka Invs. BV (Neth.)*, UNCITRAL, Partial Award, at ¶ 307.

210. *See generally AES Summit Generation Ltd. v. The Republic of Hungary*, ICSID Case No. ARB/07/22, Award, ¶ 10.3.28 (Sept. 23, 2010) (referring to a legislative proposal that argued that “the prices of electric power are unfairly high compared to the price level of countries around us. For the security of the people and in order to lighten the financial burden of families and to increase the competitiveness of enterprises and with the intention to perceivably reduce the price of electric energy and to create honest competition in the market, the National Assembly passes the following resolution.”).

The *AES* Tribunal first accepted that states could justify interference with investments on the basis of purely political matters.²¹¹ It considered that:

the level of the generators' returns became a public issue and something of a political lightning rod in the face of upcoming elections. However, the fact that an issue becomes a political matter, such as the excessive profits of the generators and the reintroduction of the Price Decrees, does not mean that the existence of a rational policy is erased.²¹²

“Knock[ing] down”²¹³ “luxury”²¹⁴ profits would, on this basis, be a perfectly valid and rational policy objective. Consequently, states could not justify interventions in electricity prices only on the basis of the necessity to protect vulnerable consumers (*i.e.* reasons of social policy) or to promote the competitiveness of the national strategic industry (*i.e.* reasons of economic policy), but also, following the reasoning of the *AES* Tribunal, to meet short-term political necessity (*i.e.* to please voters in the context of upcoming elections).

The possibility of justifying public interference with investments on the basis of short-term political concerns is not consistent with the long-term nature of investments in the electricity production sector. The financial viability of electricity investment depends on the long-term stability of the regulatory framework in which they operate. Power plants are, with some exceptions,²¹⁵ not mobile assets. They cannot delocalize to other markets when the “rules of the game” become unviable for them. Investors in electricity production are thus “trapped” and costs are “sunk.” In the absence of any delocalization threat, investors in electricity production are highly exposed to government interference with the financial basis of their investments. According to Aisbett: “[a]fter the investment takes place and costs are sunk, the optimal policy for the host is to extract rents up to the value of the sunk costs, that is, to directly or indirectly expropriate the investment.”²¹⁶

Moreover, given the high political sensitivity of electricity supply, investments in electricity production are extremely vulnerable to public

211. *Id.* ¶ 10.3.23.

212. *Id.* ¶¶ 10.3.22-23.

213. *Id.* ¶ 4.16 n.12.

214. *Id.*

215. Mario E. Bergara, Witold J. Henisz & Pablo T. Spiller, *Political Institutions and Electric Utility Investment: A Cross-Nation Analysis*, CAL. MGMT. REV., Winter 1998, at 18, 22 n.22 (in the Philippines, for instance, power plants were put on floating barges that were designed to be moved from the country if the political environment degraded).

216. Emma Aisbett, *Bilateral Investment Treaties and Foreign Direct Investment: Correlation Versus Causation 5* (Mar. 15, 2007) (unpublished manuscript) (on file with Munich University Library, Munich Personal RePEc Archive Paper No. 2255), available at http://mpa.ub.uni-muenchen.de/2255/1/MPRA_paper_2255.pdf; Guy L.F. Holburn & Pablo T. Spiller, *Institutional or Structural: Lessons from International Electricity Sector Reforms*, THE ECONOMICS OF CONTRACTS: THEORIES AND APPLICATIONS 463, 467 (Eric Brousseau & Jean-Michel Glachant eds., 2002) considering that:

[s]unk assets' expropriation may be profitable for a government if the direct costs (reputation loss vis-à-vis other utilities, lack of future investments by utilities) are small compared to the (short-term) benefits of such action (achieving re-election by reducing utilities' prices, . . .), and if the indirect institutional costs (e.g., disregarding the judiciary, not following the proper, or traditional, administrative procedures, etc.) are not too large.

interference based on short-term political concerns.²¹⁷ The approach of the *AES* Tribunal does not sufficiently take into account the considerable risk of opportunistic interference by governments with electricity prices. Under the cover of allegations of “luxury” profits or other short-term political – or even populist/opportunistic – considerations, states could considerably affect the financial viability of electricity investments.

After recognizing the necessity to tackle “luxury” profits as a rational policy objective and finding that the re-regulation of electricity prices by Hungary was proportionate and consistent with this policy, the *AES* Tribunal examined whether “the generators were still going to receive a reasonable return.”²¹⁸ It ruled that the prices fixed by the new Price Decrees were “reasonable” by comparing the rate of return on assets that was in place when the claimants made their investments with the rate of return introduced by the new pricing regime.

In the *AES* case, the assessment of the “reasonable” nature of the prices was relatively straightforward. The regulatory framework governing the privatization program on which basis the claimants made their investments provided for a return on investment of 8%.²¹⁹ The new pricing regime provided a 7.1% return on assets.²²⁰ The relative ease with which the Tribunal could come to its conclusion can be explained by the regulatory nature of the pricing regime.

In contrast, assessing the “reasonable” character of free market prices will prove to be a much more delicate task. In a liberalized market environment, the outcome of the price formation mechanism is determined by factors that are very difficult to evaluate in relation to objective and universal standards. Indeed, free market prices are supposed to reflect scarcity on the supply side and so give the necessary signals to the market players to invest in additional production capacity.²²¹ These signals depend on the value that consumers give to the security and the reliability of their electricity supply (usually expressed as the Value of Lost Load – VOLL).²²² This value thus depends on aggregate consumer preferences that are reflected in the outcome of the market and are very difficult to objectively assess by a central authority. Electricity prices also reflect business and regulatory risks that are inherent to the functioning of the electricity market. The premiums that the operators of power plants demand to cover these risks depend on their perception on the occurrence of these risks. How these risks are reflected in the electricity prices is the result of a subjective evaluation that can, with difficulty, be assessed on the basis of objective and uncontroversial criteria. Furthermore, operators of thermal power plants translate the costs of primary energy fuels in their price bids. Electricity prices are thus influenced by the volatility of the market for primary energy fuels.

217. U.N. CONFERENCE ON TRADE AND DEV., WORLD INVESTMENT REPORT 2008: TRANSNATIONAL CORPORATIONS AND THE INFRASTRUCTURE CHALLENGE 162 (2008); Brian Levy & Pablo T. Spiller, *A Framework for Resolving the Regulatory Problem*, in REGULATIONS, INSTITUTIONS, AND COMMITMENT – COMPARATIVE STUDIES OF TELECOMMUNICATIONS 1, 3 (Brian Levy & Pablo Spiller eds., 1996).

218. *AES Summit*, ICSID Case No. ARB/07/22, Award, at ¶ 10.3.37.

219. *Id.* ¶ 10.3.44.

220. *Id.*

221. *Commission Proposal*, *supra* note 18, at 4; O’Neill, *supra* note 17, at 502.

222. *STOFT*, *supra* note 52, at 154.

Operators make arrangements to hedge themselves against this volatility. These arrangements depend on the operators' subjective perception of the future evolution of energy prices. Here also, a standardized and objective assessment by central authorities appears to be barely possible.

More generally, the difficulty for central authorities to assess these different price/cost components can be explained by the fact that "second-guessing" the outcome of the market is in fundamental contradiction with the *raison d'être* of the liberalization process. Liberalizing the electricity market aims to replace central command and control by market forces in order to stimulate the efficiency of the sector.²²³ The central determination of investment by public companies and their financing on a "cost-plus" basis were often considered by analysts as being the root of the inefficiency in state controlled, monopolistic, organization operating within the electricity sector.²²⁴ To limit the cost of guaranteeing security of supply and modernizing the sector, liberalization replaces the central command and control organization with individual decisions based on the outcome of the market.²²⁵ Interference by public authorities with the "invisible" forces of supply and demand – for instance, through replacing market prices with "reasonable" tariffs – prevent the market from determining the right outcome and thus from attaining its optimal level of efficiency.²²⁶ The risk of such short-term interference for political reasons requires investors to calculate risk premiums in their business cases or to reflect risk in the discount rate.²²⁷ This, in turn, raises the cost associated with electricity production or delays investment. In the long-term, such interference has negative consequences for electricity consumers and the electricity system in general. According to the European Commission: "[w]hile short-term solutions, such as regulated prices, might appear to be advantageous in the light of rapidly increasing energy prices, the likely consequences of such measures are that investor confidence is undermined, market entry is deterred and the full benefits of the internal energy market are placed at risk."²²⁸

The question is whether the long-term negative impact of price interventions for political reasons could affect their validity under international investment law. As the *AES* Tribunal recalled, states have a broad margin of

223. *Communication from the Commission to the Council and the European Parliament - Completing the Internal Energy Market*, at 2, COM(2001) 125 final (March 13, 2001); *Sobranie Zakonodatel'stva Rossiiskoi Federatsii [SZ RF][Russian Federation Collection of Legislation]* 2003, No. 13, Item 1177, [FZ][Russian Federal Law on the Electric Power Industry] 2003, No. 35, art. 6.

224. *Sobranie Zakonodatel'stva Rossiiskoi Federatsii [SZ RF][Russian Federation Collection of Legislation]* 1997, No. 18, Item 2132 [FZ][Edict of the President of the Russian Federation on the Main Regulations concerning the Structural Reform in the Field of Natural Monopolies].

225. *Id.*

226. DEP'T OF ENERGY AND CLIMATE CHANGE, *supra* note 24, at 66; OREN CONSULTING, *supra* note 6, at 3-1; Brunekreeft & McDaniel, *supra* note 7, at 112-115; THE BRATTLE GRP., *supra* note 6, at 24.

227. Andreas Ehrenmann & Yves Smeers, *Stochastic Equilibrium Models for Generation Capacity Expansion* 3 (Elec. Pol'y Res. Group, Working Paper No. 1019, 2010) available at <http://www.eprg.group.cam.ac.uk/wp-content/uploads/2010/09/EhrenmannSmeersCombined2EPRG10192.pdf>.

228. *Commission Working Document: State of Play in the EU Energy Policy, Accompanying Document to the Communication on Energy 2020: A Strategy for Competitive, Sustainable and Secure Energy*, at 8, SEC (2010) 1346 final (Nov. 10, 2010).

maneuver to determine what they consider as rational policy objectives.²²⁹ But can this include policies that benefit consumers in the short term but clearly harm them in the long term?

The very large margin of maneuver granted by the *AES* Tribunal to governments could be explained by the fact that the Award was rendered in the aftermath of the 2008-2009 economic and financial crisis. The *AES* Tribunal assessment of “luxury” or excessive profits must be placed in the context of public reaction to the near collapse of the financial system. Indeed, the Tribunal justified its approach by stating that: “[o]ne need only recall recent wide-spread concerns about the profitability level of banks to understand that so-called excessive profits may well give rise to legitimate reasons for governments to regulate or re-regulate.”²³⁰ However, in a post-crisis context, future arbitral tribunals may not necessarily adopt such a broad interpretation of a state’s right to interfere with the financial basis of investments.

In any event, to amount to a violation of the fair and equitable treatment standard, public interference with free electricity prices must have substantial consequences for investors. According to Wälde: “[t]he disappointment of legitimate expectations must be sufficiently serious and material. Otherwise, any minor misconduct by a public official could go to the jurisdiction of a treaty tribunal.”²³¹

The function of an arbitral tribunal is not “to act as a general-recourse administrative law tribunal.”²³² An arbitral tribunal is also not an energy regulator of second instance. Some price control in specific circumstances (*e.g.*, absence of competition, abuse of dominant position) must therefore be tolerated.

It is however arguable that price caps that clearly and systematically prevent investors from recovering their costs and expected return could constitute a “sufficiently serious and material” breach of the free market pricing expectations that states have created to attract these investors in the development of electricity production. Such price measures could in some cases seriously jeopardize the financial viability of electricity investments already made. By interfering with the financial and regulatory foundation of investments in electricity production, the re-regulation of liberalized electricity prices could thus constitute a violation of the fair and equitable treatment standard.

Interference with the financial basis of investment and the impossibility for producers to recover their costs are paramount to the new “economic equilibrium” principle that the Tribunal in *Total v. Argentina* developed to rule that Argentina breached the fair and equitable treatment.

C. The “Economic Equilibrium” Principle for Electricity Production

The Tribunal in *Total v. Argentina* refused to acknowledge the existence of a free market pricing expectation or a promise of liberalization in the electricity

229. *AES Summit Generation Ltd. v. The Republic of Hungary*, ICSID Case No. ARB/07/22, Award, ¶ 10.2.2 (Sept. 23, 2010).

230. *Id.* ¶ 10.3.34.

231. *Int’l Thunderbird Gaming Corp. v. The United Mexican States*, UNCITRAL, Separate Opinion, ¶ 14 (Jan. 26, 2006) (Wälde, Arb., dissenting in part), available at <http://italaw.com/documents/ThunderbirdSeparateOpinion.pdf>.

232. *Id.*

market.²³³ Instead, it considered that Argentina violated the fair and equitable treatment standard by not respecting the “economic equilibrium” principle for electricity production.²³⁴ The Tribunal did not refer to previous arbitral cases to justify this principle. It seems to have developed a new principle from scratch.

According to the Tribunal, “respect for the economic equilibrium principle entails that, in normal situations and from a long term perspective, the private generators are able to cover their costs and make a return on their investment[s], while providing their services to the market and consumers as required under the Electricity Law.”²³⁵

The Tribunal developed the “economic equilibrium” principle on the basis of the criteria of “economic rationality”²³⁶ and “sound management” of utilities in a market economy – such as liberalized electricity markets.²³⁷ The “sound management” of the electricity sector shall be assessed “in light of practices generally followed in modern societies to ensure electricity supply, when this is left to private companies.”²³⁸ In this respect, electricity “price[s] should reflect the economic cost of the system.”²³⁹ The Tribunal moreover referred to the criteria of public interest, reasonableness, and proportionality.²⁴⁰ According to the Tribunal, even in the absence of specific pricing promises by the Government, “[a] foreign investor is entitled to expect that a host state will follow those basic principles . . . in administering a public interest sector that it has opened to long term foreign investments.”²⁴¹ The Tribunal concluded that:

[T]he 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 government regulation . . . , where operators cannot suspend the service, investments are made long term and exit/divestment is difficult.²⁴²

The new principle of “economic equilibrium” and “sound economic management” developed by the Tribunal in *Total v. Argentina* provides considerable protection to investors in liberalized electricity markets. Although it does not guarantee the respect for free market pricing, it nevertheless offers a very strong defense against public interference with electricity prices.

Indeed, price caps that prevent electricity producers from recovering their costs and earning a reasonable return on investment are not consistent with the “sound management” of electricity production in a free market economy. In accordance with the “economic rationality” underlying liberalized electricity markets, prices should reflect the cost of the system in order to enable producers

233. *Total S.A. v. Argentine Republic*, ICSID Case No. ARB/04/1, Decision on Liability, ¶ 314, 327 (Dec. 27, 2010), available at http://italaw.com/documents/TotalvArgentina_DecisionOnLiability.pdf.

234. *Id.* ¶ 330.

235. *Id.* ¶ 313.

236. *Id.* ¶ 333.

237. *Id.* ¶¶ 167, 314.

238. *Id.* ¶ 328.

239. *Id.* ¶ 327.

240. *Id.* ¶ 333.

241. *Id.*

242. *Id.*

to operate and provide an efficient service.²⁴³ Investors should be entitled to make a “reasonable” profit in order to raise capital and secure sufficient investments to meet future demand. As regards the Argentinean electricity sector, analysts recognize that the Government’s interference with prices “creat[ed] problems for the profitability of the sector and consequently stop[ed] most of the investment in the sector.”²⁴⁴

As stressed by the *Total* Tribunal, the respect of cost-reflective pricing is particularly important for investments of general interest, such as electricity production, that are characterized by a long-term pay-back time and that cannot suspend their operations.²⁴⁵ In sum, price caps or the re-regulation of prices that make an investment in electricity production unprofitable are not compatible with the “economic equilibrium” principle governing electricity production in a liberalized market environment. Such pricing measures would therefore breach the fair and equitable treatment standard of international investment law.

D. Re-Regulating Free Market Prices as Transitional Liberalization Measure

States can introduce price caps or re-regulate liberalized electricity prices as transitional measures in the context of the gradual liberalization process of the electricity market. In *AES v. Hungary*, for instance, Hungary argued that the re-introduction of administrative prices was necessary “for a transitional period, pending the full liberalization.”²⁴⁶ Hungary described the new pricing regime as “an additional measure to encourage generators to renegotiate” the long-term Power Purchase Agreements in order to free marketable electricity and so stimulate competition.²⁴⁷

The majority of the *AES* Tribunal rejected this argument by arguing that a state could not legitimately make use of its public policy powers in order to force a private party to give up its contractual rights.²⁴⁸ The approach of the majority in *AES* does however not categorically prevent states from implementing policies that are aimed at promoting competition in energy markets and that negatively impact on investors’ interests. Indeed, the majority of the Tribunal considered that its ruling did:

not mean that the state cannot exercise its government powers, including its legislative function, with the consequence that private interests – such as the investor’s contractual rights – are affected. But that effect would have to be a consequence of a measure based on public policy that was not aimed only at those contractual rights. Were it to be otherwise, a state could justify the breach of commercial commitments by relying on arguments that such breach was occasioned by an act of the state performed in its public character.²⁴⁹

243. *Id.* ¶ 167.

244. Isaac Dwyer, Santiago Arango & Erik Larsen, *Understanding the Argentinean and Colombian Electricity Markets*, in *ELECTRICITY MARKET REFORM: AN INTERNATIONAL PERSPECTIVE* 595, 603 (Fereidoon Sioshansi & Wolfgang Pfaffenberger eds., 2006).

245. *Total*, ICSID Case No. ARB/04/1, Decision on Liability, at ¶¶ 167, 133.

246. *AES Summit Generation Ltd. v. The Republic of Hungary*, ICSID Case No. ARB/07/22, Award, ¶ 10.2.4 (Sept. 23, 2010).

247. *Id.* ¶ 10.2.26.

248. *Id.* ¶ 10.3.12.

249. *Id.* ¶ 10.3.13.

Public policies that affect private interests are inherent to the creation of a liberalized electricity market. As introduced above, the liberalization of energy markets is a gradual process. The experience of the European Union illustrates the fact that it requires the subsequent enactment of legislative “packages” to complete the organization of the electricity sector on a free market and competitive basis. These policy measures, by design, impact on the rights of the incumbent market player.

The *AES* Award is of particular relevance to the assessment of the compatibility of such policy measures with international investment law. However, the decision only provides the beginning of an answer on how to carry out this assessment. Given the circumstances of the case, the majority of the Tribunal considered that Hungary could not justify the re-regulation of prices on the basis of *AES*' failure to agree to a renegotiation of its contractual rights under the long term Power Purchase Agreements.²⁵⁰ It therefore refused to further analyze this question. In the absence of a full analysis of this issue by the *AES* Tribunal and more generally by international arbitral tribunals, it is relevant, and useful, to see if other courts have accepted as justified the re-regulation of electricity prices in a context of limited competition.²⁵¹

The re-regulation of electricity prices as a transitional measure in the context of the creation of a liberalized market is at the centre of the Judgment of the European Court of Justice in *Federutility and others v. Autorità per l'energia elettrica e il gas*.²⁵² The *Federutility* case concerns the re-introduction of regulated prices in the liberalized market for natural gas in Italy, being at that time “still characterised by an absence of conditions of ‘effective competition.’”²⁵³ The regulated prices were set at a lower level than the prices that “would result from the operation of supply and demand.”²⁵⁴ According to the claimants, these regulated prices did not enable them to cover the costs connected with the supply of natural gas (e.g., the purchase costs of this commodity on the wholesale market).²⁵⁵

The Court of Justice considered that, although the principle of liberalization implies that the price of energy products be determined by the forces of supply and demand, the European energy directives do, in principle, permit state

250. *Id.* ¶ 10.3.14.

251. Arbitral tribunals sometimes refer to decisions taken by other jurisdictions to justify their interpretation and application of legal principles to the facts of the case. *See generally* *Técnicas Medioambientales Tecmed S.A. v. The United Mexican States*, ICSID Case No. ARB (AF)/00/2, Award, ¶ 122 (May 29, 2003), 19 ICSID Rev. 158 (2004) (referring to the case law of the European Court for Human Rights).

252. Case C-265/08, *Federutility & others v. Autorità per l'energia elettrica e il gas*, 2010 E.C.R. 00000 (Apr. 20, 2010), available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:62008J0265:EN:NOT>. On an assessment of transition measures in the context of the gradual creation of the EU internal electricity and gas market, *see, e.g.*, Case C-17/03, *Vereniging voor Energie, Milieu en Water v. Directeur van de Dienst uitvoering en toezicht energie*, 2005 E.C.R. I-05016 (June 7, 2005), and Case C-347/06, *ASM Brescia SpA v. Comune di Rodengo Saiano*, 2008 E.C.R. I-05641.

253. *Federutility*, 2010 E.C.R. 00000, at ¶ 14.

254. *Id.* ¶ 15.

255. *Federutility*, 2010 E.C.R. 00000, Separate Opinion of Advocate Gen. Colomer at ¶ 34 (stating that the regulated prices would “prevent the full cost of the raw material being recouped when it is very high. Thus, gas suppliers are obliged to charge their customers a price which does not fully reflect the amount paid for the raw material”).

intervention in the determination of energy prices.²⁵⁶ Such interference with prices is an exception to the organization of the energy markets on a free market basis. To comply with European law – in particular with the criteria of Public Service Obligations – such state measures must therefore meet strict conditions: they must be justified in the general economic interest²⁵⁷ and be proportionate to the general economic interest pursued.²⁵⁸

As regards the objective of general economic interest, the Court of Justice considered that Member States are allowed to interfere with free market prices, in particular when such interference aims to:

ensure that the price of the supply of natural gas to final consumers is maintained at a reasonable level having regard to the reconciliation which Member States must make, taking account of the situation in the natural gas sector, between the objective of liberalisation and that of the necessary protection of final consumers pursued.²⁵⁹

In a comparable way to the *AES* Tribunal, the Court of Justice thus recognized the sovereign right of states to pursue social policies aimed at protecting consumers against allegedly high free market prices. As regards the compliance of such measures with the principle of proportionality, the Court of Justice considered that:

those obligations [*i.e.* the price caps] may compromise the freedom to determine the price for the supply of natural gas only in so far as is necessary to achieve the objective in the general economic interest which they pursue and, consequently, for a period that is necessarily limited in time.²⁶⁰

The limitation in time of public interference with liberalized energy prices was thus a decisive criterion in the Court's assessment of the proportionality of such a measure. According to the Court:

such an intervention must be limited in duration to what is strictly necessary in order to achieve its objective, in order, in particular, not to render permanent a measure which, by its very nature, constitutes an obstacle to the realisation of an operational internal market in gas.²⁶¹

The Court appears to link the limitation of price interference in time with the absence of competition in the energy market concerned: because competition in the Italian natural gas market was not effective, not intervening with prices would have exposed final consumers to major increases in the price of gas.²⁶² A contrario, it can be implied that improved competition on the market removes the necessity to protect consumers against “unreasonable” price increases. According to Advocate General Colomer, “the exception to the rules of the internal market loses its justification if the situation changes: for example, if competitors join the wholesale market.”²⁶³

256. *Federutility*, 2010 E.C.R. 00000, at ¶ 24.

257. *Id.* ¶¶ 25-32.

258. *Id.* ¶¶ 32-47.

259. *Id.* ¶ 32.

260. *Id.* ¶ 33.

261. *Id.* ¶ 35. *See also Federutility*, 2010 E.C.R. 00000, Separate Opinion of Advocate Gen. Colomer at ¶ 70 (stating that the “temporary nature of the measure is . . . the first and main consequence of the proportionality principle”).

262. *Federutility*, 2010 E.C.R. 00000, at ¶ 37.

263. *Federutility*, 2010 E.C.R. 00000, Separate Opinion of Advocate Gen. Colomer at ¶ 70.

The assessment by the European Court of Justice of the compatibility of regulated prices with the principles of the internal energy market provides interesting tools to evaluate such state intervention under international investment law. Based on the Court's approach, it can be argued that re-regulating energy prices to protect the consumer is an exception to the organization of the energy sector on a free market basis. It can only be tolerated if strict²⁶⁴ conditions are met. One of those conditions is that the intervention must be temporary in nature and connected to the absence of competition in the market.

On this basis it can be argued that investors that commit capital for electricity production on the basis of a liberalization promise must accept regulated prices as a transitional measure in the completion of the liberalization process.²⁶⁵ However, price caps that are systematically introduced to shield consumers from "legitimate" price increases in a context of relatively competitive energy markets are incompatible with the idea of liberalization. Such measures would thus breach investors' expectations and amount to a violation of international investment protection standards.

VI. CONCLUSION

The *AES v. Hungary* and *Total v. Argentina* cases illustrate the complex tension in the organization of electricity markets between investors' concern to secure long-term price certainty and states' sovereign right to protect consumers against high prices. In the *AES* case, the Tribunal's assessment of this balance was relatively straightforward given the regulated nature of the financial basis of the claimants' investment. The claimants invested on the basis of a commitment by the host state that regulated tariffs would be maintained at a certain level at both the time of investment and beyond the opening of the market to competition. The new pricing regime that the host state introduced to curb what it considered as excessive profits did not impose a substantially different tariff level than what was promised to the electricity producers when they made their initial investment. In the absence of specific commitments from the state that it would refrain from re-regulating electricity prices, the imposition of a new pricing regime would not violate international investment protection standards.

As illustrated by the *Total v. Argentina* case, the balance between investor concerns of stability and the regulatory sovereignty of host states is much more challenging in the context of reformed electricity markets. This is especially the case in liberalized "energy-only" markets where price evolutions are left to the "invisible hand of the market." Per definition, the liberalization of electricity markets implies the determination of electricity prices by the forces of supply and demand. These forces are to an important extent driven by subjective factors that can, with difficulty, be assessed on the basis of objective standards in order to determine their "reasonable" nature. Indeed, in accordance with the paradigm

264. ERGEG, ERGEG 2010 STATUS REVIEW OF THE LIBERALISATION AND IMPLEMENTATION OF THE ENERGY REGULATORY FRAMEWORK 28 (2010).

265. Memorandum submitted by Philip Wright and Dr. Ian Rutledge to U.K. Parliament Select Committee on Business and Enterprise, *Why the Re-Introduction of Price Control Regulations Is the Only Remedy Which Will Work for Domestic Energy Consumers* (July 28, 2008), available at <http://www.publications.parliament.uk/pa/cm200708/cmselect/cmberr/293/293we86.htm>.

of liberalized electricity markets, scarcity of production capacity – especially peak production capacity – must be reflected in higher electricity prices during certain periods. These higher electricity prices are expected to constitute a sufficient signal for investors to commit adequate production capacity to answer demand in the long term. In theory, the role of the state must be limited to the creation of the necessary conditions to facilitate this free market price formation process. The state must refrain from interfering with the forces of supply-demand. Attempts by the state to “second-guess” the outcome of the market create investment uncertainty and negatively affect the modernization and development of production capacity in the long term. Investors’ perceptions of future public interference with the price formation mechanism are reflected in risk premiums and thus generate systematically higher electricity prices. This increases the costs of ensuring security of supply and modernizing electricity production.

Following the fundamental principles underlying the liberalization of electricity markets, companies that invest in a liberalized market environment can reasonably and legitimately expect that they will be allowed to sell their electricity output at free market prices. They can expect to recover their investment and operating costs (e.g., fuel, maintenance), as well as a “reasonable” return on investment, through this free market price formation mechanism.

International investment law, and in particular the principle of fair and equitable treatment, aims to protect investors’ legitimate and reasonable expectations against interference by the state. On this basis, the free market pricing expectations of investors in electricity production could fall under the scope of international investment arbitration. For investors that have committed capital in reliance on a promise of liberalization, these expectations must be protected even if the state has made no specific commitments that administrative prices will not be re-introduced. The “function usually assigned to”²⁶⁶ the concept of liberalization per definition excludes the re-regulation of electricity prices.

The recognition of an investor’s legitimate and reasonable expectation that the electricity market will be organized on a free market basis does not mean that any public interference with electricity prices will amount to a violation of international investment law. As the *AES* Tribunal recalled, states have a broad margin of maneuver to implement public policies, even if these policies affect investors’ interests and are of a purely political nature. The European Court of Justice, for instance, considered in the *Federutility* case that energy companies must tolerate price caps if these are of a temporary nature and justified due to a context of limited competition. Further, under international arbitration law, interference with an investor’s rights must be sufficiently important to equate to a violation of investment standards.

However, interference with electricity prices that is “sufficiently serious and material”²⁶⁷ could violate the principle of fair and equitable treatment. As

266. *Técnicas Medioambientales Tecmed S.A. v. The United Mexican States*, ICSID Case No. ARB (AF)/00/2, Award, ¶ 154 (May 29, 2003), 19 ICSID Rev. 158 (2004).

267. *Int’l Thunderbird Gaming Corp. v. Mexico*, UNCITRAL, Award, ¶ 14 (Jan. 26, 2006) (Wälde, Arb., dissenting in part).

acknowledged by the Tribunal in *Total v. Argentina*, this could be the case if states systematically prevent electricity producers from recovering their investment and operating costs and earning a “reasonable” return on their investment. In “energy only” markets, price caps that systematically limit the price of electricity when demand is peaking would destroy the business case of peak-load capacity, which is built to operate during a limited amount of hours and is thus dependent on high prices during these hours. A similar conclusion applies to price interventions that, in a relatively competitive market, systematically prevent the operators of power plants from reflecting in electricity prices the increased cost of primary energy sources. Following the reasoning of the Tribunal in *Total v. Argentina*, such price intervention is not consistent with the “economic equilibrium” principle for electricity production in liberalized electricity markets. It is contrary to the “economic rationality” and “sound economic management” of electricity systems organized on a free market basis.

Risks of state interference with the financial and regulatory basis of electricity investments result from the difficulty in achieving a balance between the interests of producers and consumers. Depending on the time perspective – short or long term – these interests may, to a certain extent, seem incompatible. Nevertheless, the general objective of the liberalized electricity market is to generate investment sufficient to answer the long-term demand of consumers as efficiently as possible. Public intervention that jeopardizes the financial viability of producers in favor of short-term political concerns will “exacerbate . . . regulatory risk[s] and discourage . . . investment[s].”²⁶⁸ In the words of the *Total* Tribunal, such interference with prices prevents investors from raising capital and investing in sufficient production capacity to meet future demand. Such actions contradict the long-term interests of consumers and are, therefore, not compatible with the concept of liberalization.

Paradoxically, well-functioning liberalized electricity markets – by allowing higher prices in periods of scarcity of electricity production capacity – are likely to generate political reactions aimed at protecting consumers in the short term against price increases that are necessary (or “legitimate”) to ensure long-term security of supply. Once investments are made and costs are “sunk,” governments might interfere with liberalized electricity prices to pursue short-term economic, social and political objectives. International investment law – as an “externally supported commitment device”²⁶⁹ – could to some extent shield producers against such opportunistic measures. By providing some guarantees against the political and regulatory risks that are inherent in the liberalization of the electricity market, international investment law could contribute to reduce the costs associated with both securing long-term supply and modernizing the electricity sector.

268. INT’L ENERGY AGENCY, *supra* note 29, at 74.

269. Emma Aisbett, *Bilateral Investment Treaties and Foreign Direct Investment: Correlation Versus Causation* 5 (Mar. 15, 2007) (unpublished manuscript) (on file with Munich University Library, Munich Personal RePEc Archive Paper No. 2255), available at http://mpira.ub.uni-muenchen.de/2255/1/MPRA_paper_2255.pdf.