

1999

The Electricity Directive of the European Union: What Can the Member States Learn from the Experiences of Privatized England and Wales?

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THE ELECTRICITY DIRECTIVE OF THE EUROPEAN UNION: WHAT CAN THE MEMBER STATES LEARN FROM THE EXPERIENCES OF PRIVATIZED ENGLAND AND WALES?

RACHEL A. MITCHELL *

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INTRODUCTION

Historically, energy has been a heavily regulated industry.¹ The rationale behind this history of tight control has been primarily an economic one² based on the beliefs that electric utilities are natural monopolies³ and that forcing competition will disrupt the utilities' economies of scale.⁴ This long-standing belief has evolved over the

1. See, e.g., Harvey Wasserman, *Utility Deregulation in Turmoil*, ENN FEATURES (June 3, 1998) <<http://www.enn.com/features/1998/06/060398/0603fea.asp>> (highlighting that the advent of electricity in the United States was dominated by a few large firms, which resulted in price manipulation). For sixty years following President Roosevelt's New Deal legislation, under which utilities were given monopoly territories in exchange for the regulation of their profits, state utility commissions established returns at approximately fifteen percent. See *id.*

2. See, e.g., *id.* (claiming President Roosevelt's reason for initially regulating profits of electric utilities was that the monopolistic structure of the industry resulted in price manipulation and unreliable service).

3. See ROGER A. MORIN, UTILITIES' COST OF CAPITAL 3 (1984) (suggesting that the belief behind the natural monopoly structure of public utilities stemmed from the fact that the industry required a high cost of capital to build plant facilities and distribution networks and that it was inefficient to duplicate such costs, thus creating a barrier to entry into the industry).

4. See M. Bruce Harper, *Trust But Verify: Innovation in Compliance Monitoring as a Response to the Privatization of Utilities in Developed Nations*, 48

past several years as governments of developed nations around the world have explored the possibility of deregulation or privatization of their energy industries.⁵ The impetus behind this new trend is also economic.⁶ Recently introduced competition and the reduction of governmental control⁷ in the energy industry have brought about increased productivity and decreased energy prices.⁸

ADMIN. L. REV. 593, 599-605 (1996) (stating that low cost power is imperative to national economic well-being in terms of economic growth and security; thus there was a belief that the industry required tight regulation to correct market flaws present in naturally monopolistic industries while limiting market entry to prevent an inefficient duplication of start-up cost of capital).

5. See *id.* at 593 (discussing the transformation of the energy industry from intensive regulation to the current trend of deregulation). Many European countries are in the process of deregulating their electricity industries. See, e.g., *Community Law: Delays in Transposition of Energy Legislation*, EUR. ENERGY (Europe Information Service), July 25, 1997, at No. 496 (indicating that Italy is slow in implementing European Union energy law); *Electricity: Deadlines For Opening Up EU Market Are Not Too Tight, Says Papoutsis*, EUR. ENERGY (Europe Information Service), Mar. 20, 1998, at No. 510 (answering the concerns of Greece over strict deadlines for implementation of the Electricity Directive's mandates); *Electricity: German and British Markets Are at Least Being Prised Open*, EUR. ENERGY (Europe Information Service), May 8, 1998, at No. 513 (reporting that Germany's deregulation efforts are even more far-reaching than required by the Electricity Directive); *Electricity: Varying Effects of Deregulation in Nordic Countries*, EUR. ENERGY (Europe Information Service), July 11, 1997, at No. 495 (referring to Sweden and Finland as having the most liberalized, or least governmentally controlled, energy sectors in Europe while Norway has liberalized its power production without privatizing its industry); *Energy Council: Electricity Liberalisation Debate Grinds on Into 1996*, EUR. ENERGY (Europe Information Service), Jan. 12, 1996, at No. 460 (explaining that the Spanish Industry Minister acknowledged the significance of quickly reaching an agreement on the mandates of the Electricity Directive but understanding France's concerns that each country be allowed to adapt the directive's rules under the guidance of that country's practices); see also *The UK Electricity System*, *infra* note 135 (analyzing the varied deregulation efforts of the countries of the United Kingdom).

6. See *The Union's Policies-Energy Policy* (visited June 3, 1998) <<http://europa.eu.int/pol/ener/en/info.htm>> (stating that the main economic focal point of the European Union's energy policy is developing competition).

7. See Harper, *supra* note 4, at 601-02 (setting forth two methods of reducing government control). The reduction of governmental control can take one of two forms: deregulation, removal of protective constraints on the industry, or privatization, transferring ownership of assets from public to private. See *id.* (discussing the two solutions to the market's discontent with the poor financial performance of regulated public utilities).

8. See Dennis C. Stickley, *New Forces in International Energy Law: A Dis-*

Proponents of deregulation assert that the introduction of competition into a previously regulated industry will force companies to innovate in order to lower their costs of producing energy, and will then pass these benefits along to their customers in the form of lower prices.⁹ Deregulation is occurring throughout developed economies¹⁰

discussion of Political, Economic, and Environmental Forces within the Current International Energy Market, 1 TULSA J. COMP. & INT'L L. 95, 96-101 (1993) (discussing the goals behind energy deregulation and privatization); see also Alexander J. Black, *European Law and Public Utility Open Access*, 10 FLA. J. INT'L L. 117, 118 (1995) (describing the underlying economic policy goals of deregulation).

9. See Roger Segelken, *Electricity Deregulation May Bring Innovation*, ENN DAILY NEWS (Sept. 5, 1997) <<http://www.enn.com/enn-news-archive/1997/09/090597/09059704.asp>> (maintaining that current deregulation of power generation in the United States allows customers to choose the power producer they wish to utilize and, thus, force companies to innovate in order to remain competitive in the market). "Competition leads to innovations in very unpredictable ways." *Id.*

10. See generally Wasserman, *supra* note 1 (criticizing California's attempts at deregulation through enactment of bill AB1890, which provided compensation for a utility's poor investments, such as building nuclear reactors on an earthquake fault line). This compensation is called a "stranded cost" provision that allows a utility to collect from its customers a charge for prudently incurred investments, such as a nuclear reactor purchased to generate power for the benefit of the utility's customers. See *id.* (asserting that such large investments as nuclear reactors cause a utility's rates to be higher, therefore, making the utility less competitive). See, e.g., Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Order No. 888, 18 C.F.R. pts. 35, 27, 38, *order on reh'g*, Order No. 888-A, 18 C.F.R. pts. 35, 37, *order on reh'g*, Order No. 888-B, 81 FERC para. 61,248 (1997), *order on reh'g*, Order No. 888-C, 82 FERC para. 61,046 (1998) [hereinafter Order No. 888 and Order No. 888-A] (establishing the United States' law implemented by the Federal Energy Regulatory Commission). FERC law allows stranded cost recovery for those utilities that reasonably incur costs, which become unprofitable investments, due to the utility's generation customer's use of open-access tariffs, which allow the departing generation customer to shop for power. FERC has jurisdiction to regulate the utilities' transmission activities and thus, by Order No. 888, order the entities under their jurisdiction to provide non-discriminatory open-access to their transmission lines. See *id.* (imposing requirements on transmission utilities to comply with federally mandated open-access requirements). The United States is also exploring the next step of electric restructuring that would allow retail customers to select their own power supplier. See Glen Coplon, *Largent, Paxon Drafting Bill as Alternative to Schaefer's*, DAILY ELEC. NEWS HIGHLIGHTS, Apr. 6, 1998 (reporting Congressional efforts to establish a mandate that would require all states, since the state has jurisdiction over the retail aspects of energy, to adopt retail choice bills by the year 2002). See, e.g., Final Plan for Restructuring New Hampshire's Electric Utility Industry, New Hampshire Commission Order No. 22,514, Docket No. DR96-150

and across industries.¹¹ However, because of the importance of electricity to the economy, both as a service necessary to power businesses and as a service necessary to operate households,¹² governments exploring deregulation seem unwilling to cede their regulatory powers and vest their complete faith in the workings of the free market.¹³

This Comment focuses on the deregulation and privatization efforts in the electricity industry of the United Kingdom. Specifically, this Comment addresses the English and Welsh approach to achieve the economic goals of a deregulated energy industry under the framework of the Electricity Directive of the European Union.¹⁴ Part I of this paper sets forth the history behind the European Union's efforts to establish a single, cohesive energy policy and the difficulties it has had thus far in developing such a policy. Part II analyzes the requirements of the Electricity Directive. Part III examines the prog-

(prescribing New Hampshire's efforts to create retail choice in their state). Like the United States, the European Union has, for almost 50 years, attempted to create a single, transnational market in energy. See Richards Butler, *European Union, in ENERGY AND RESOURCES LAW; A GUIDE TO INVESTMENT OPPORTUNITIES WORLDWIDE* 21, 21-24 (Euromoney Publications PLC, 1994) (commenting on the goals and initiatives of the European Union in establishing a single market in electricity and gas).

11. See Wasserman, *supra* note 1 (comparing utility deregulation in the United States to other industries recently deregulated, most notably airlines, trucking, and telecommunications).

12. See *The Union's Policies-Energy Policy*, *supra* note 6 (maintaining that both economic and social life revolve around the use of energy).

13. See, e.g., *Coal Industry: Unions Call for European Policy*, EUR. ENERGY (Europe Information Service), June 5, 1998, at No. 515 (discussing the desire of certain Member States to safeguard the coal industry from competition by affording provisions that would require power suppliers to purchase certain percentages of their requirements from coal producers instead of purchasing all of their requirements from lowest cost providers). Likewise, during the drafting of the Electricity Directive, labor unions argued that introducing true competition would cause energy companies to lay off employees in order to lower their costs of production, thus the directive should contain provisions protecting the work force. See *Energy Liberalisation: Unions Warn on Gas and Electricity Directives*, EUR. ENERGY (Europe Information Service), Sept. 27, 1996, at No. 476 (expressing concerns of the European Mine, Chemical and Energy Workers' Federation that the Electricity Directive, as written, would have a negative impact on employment).

14. Council Directive 96/92, 1997 O.J. (L 027) 20 [hereinafter Electricity Directive] (prescribing the law establishing a deregulated, single energy market in the European Union).

ress of England and Wales in their efforts to meet the requirements of the Electricity Directive. Part IV develops recommendations for deregulating the electricity industry in light of the English and Welsh experience under the framework of the Electricity Directive, and explores how the implementation of the Directive's requirements have affected the electricity industry in these countries. This Comment questions whether electricity deregulation can produce a truly competitive industry, given the unwillingness of governments to vest their faith in the workings of the energy generation¹⁵ and supply¹⁶ markets.¹⁷

I. THE HISTORY BEHIND THE EUROPEAN UNION'S ENERGY POLICY

A historical overview of the European Union's energy policy is important for two reasons. First, outlining the historical development of Europe's efforts to establish a single market in energy demonstrates that Europe's progress has been incremental.¹⁸ Second, historical analysis further illustrates the European Union's hesitance to favor a singular, cohesive energy policy at the expense of the Member States' authority to regulate their respective energy industries.¹⁹

15. See GLOSSARY OF TERMS TASK FORCE, GLOSSARY OF TERMS (1996) (unpublished glossary of electricity terms of the North American Electric Reliability Council) (on file with the Federal Energy Regulatory Commission) (defining generation as "the act of producing electrical energy from other forms of energy such as thermal, mechanical, chemical, or nuclear").

16. See *id.* (suggesting that the terms "supply," "capability," and "capacity" are analogous and defining them as "the maximum load [amount] which a generating unit, station, or other electrical apparatus can carry under specified conditions").

17. See generally James Barker, Jr. et al., *Regulation of Power Pools and System Operators: An International Comparison*, 18 ENERGY L.J. 216, 325 (asserting that while regulatory structures may create independence of a transmission system operator, it may not support competition).

18. See Black, *supra* note 8, at 119 (describing the importance of historical analysis of Europe's treaties to understand how European law in this area is organic and increasingly moving toward federalism).

19. See, e.g., Dana L. Romaniuk, *Regulating Public Monopolies in Furtherance of the EEC Free Competition Goal: Article 90 and the Two-Step Approach*, 69 CHI.-KENT L. REV. 1025, 1025 (1994) (observing that the Treaty of Rome failed to establish a cohesive European Community energy policy because it afforded Member States the ability to create monopoly enterprises, thereby preclud-

This reluctance to eliminate state regulation persists despite the European Union's expressed desire to achieve a unified energy policy in order to uniformly²⁰ accomplish the dual objectives of competition²¹ and a secure supply²² of energy. One reason underlying the Member States' hesitation to implement a single energy policy throughout the European Union is that such a policy is perceived as a motor thrusting the Member States into political integration.²³

A. THE FIRST TREATIES TO ESTABLISH A SINGLE ENERGY POLICY

Because of the importance of energy to the economic health of a nation,²⁴ there has always been concern for three major factors affecting the price of energy: supply, use, and production.²⁵ Considering the importance of energy and the potential volatility of these three factors, Europe first attempted to establish a cohesive energy community, called the European Coal and Steel Community, in 1951 with the Treaty of Paris.²⁶ Subsequently, in 1957, the same countries

ing a competitive market).

20. See *The Union's Policies—Energy Policy*, *supra* note 6 (stressing the need for a single energy policy throughout the European Union).

21. See *Study Shows Energy Deregulation Is Lowering Costs*, ENN DAILY NEWS (May 15, 1997) <<http://www.enn.com/enn-news-archive/1997/05/051597/05159706.asp>> (examining one effect of deregulation is competition); see also Segelken, *supra* note 9 and accompanying text (suggesting that innovation of products comes with competition).

22. See *The Union's Policies—Energy Policy*, *supra* note 6 (characterizing the need for a secure supply mandate as a Union-wide policy given the 1973 oil crisis). The 1973 oil crisis provided a warning that the European Union needed to reduce their dependence on oil imports and needed to diversify their supply sources and types. See *id.* The wake of the oil crisis ignited the European Union's desire to develop a single energy policy. See *id.*

23. See *id.* (asserting that, given the importance of energy in daily life, a single energy policy would provide a solid base for further political integration of the Member States).

24. See *id.* (describing the economic importance of energy).

25. See Jonathan D. Fishbane, *Troubled Evolution of Energy Policy in the EEC: A Discordant Note in the Harmonization Process*, 27 AKRON L. REV. 301, 302 (1994) (noting the historical importance of supply, use, and production in Europe).

26. See TREATY ESTABLISHING THE EUROPEAN COAL AND STEEL COMMUNITY, Apr. 8, 1951, 261 U.N.T.S. 143, 147, 185-95 (creating a foundation for current European Union energy laws by Article 3, which lays out general objectives, and

created the European Economic Community (“EEC”)²⁷ and the European Atomic Energy Community (“EURATOM”)²⁸ by treaties collectively known as the Treaty of Rome.²⁹ Political differences³⁰

Articles 57-64, which address production and prices of energy). The Treaty Establishing the European Coal and Steel Community (“ECSC Treaty”) also identified Belgium, France, the German Federal Republic, Italy, Luxembourg, and the Netherlands as original parties to this Treaty. *See id.* at preamble, 261 U.N.T.S. at 143. The United Kingdom, Denmark, and the Republic of Ireland acceded on January 1, 1973, subsequent to the signing of the Treaty of Accession in Brussels in 1972. *See Black, supra* note 8, at 120 (outlining the chronology of accession for new European Union Members). Greece acceded in 1981, followed by Spain and Portugal in 1986. *See id.* (outlining the accession chronology). Finally, Austria, Sweden and Finland joined the European Union following the fall of the Soviet Union. *See id.* (outlining the accession of the most recent European Union Member States).

27. TREATY ESTABLISHING THE EUROPEAN ECONOMIC COMMUNITY, March 25, 1957, 298 U.N.T.S. 11, 1973 Gr. Brit. T.S. No. 1 (Cmnd. 5179-II) [hereinafter EEC TREATY] (establishing useful framework to current European Union energy policy, particularly those areas addressing rules on the Single Market, competition, taxation, and trade).

28. TREATY ESTABLISHING THE EUROPEAN ATOMIC ENERGY COMMUNITY, March 25, 1957, 298 U.N.T.S. 167 (establishing a framework for current European energy policy, particularly Articles 40-76—which address investment, joint undertakings, and supplies—and Articles 91-100—which address the nuclear common market).

29. *See Romaniuk, supra* note 19, at 1025. The Treaty of Rome established the European Economic Community having the principal goal of creating a common market within the European Community. *See id.* (remarking on the rationale behind the creation of the Treaty of Rome). The three Communities each established a Commission, a Council of Ministers to the European Parliament, and a single Court as distinct entities. *See EEC TREATY, supra* note 27, art. 4 (explaining the structure created by the three Communities). The Council is comprised of one delegate from each Member State whose responsibilities within the Council include making general policy decisions and adopting formal legislation. *See Black, supra* note 8, at 120 (explaining the structure of the Council to Parliament in the European Union). The Commission is comprised of seventeen representatives appointed by agreement of the Member States with larger countries such as France, Germany, Italy, Spain and the United Kingdom having two Commissioners each while the smaller countries have one each. *See id.* at 121 (explaining the structure of the Commission). The Commission members, ordered to act in the interest of the Union, are responsible for “making policy proposals to the Council, adopting certain formal acts, and drafting legislative acts for Council adoption.” *Id.* The Commission is further charged with enforcing the EEC Treaty for violations by a Member State. *See id.* (recognizing further that the Commission has the ability to bring the Member State before the European Court of Justice).

30. *See, e.g., Fishbane, supra* note 25, at 302 (explaining that France’s differing views on nuclear power worked against the development of a cohesive atomic

among the Member States and lack of explicit language creating a workable framework³¹ hindered the efforts of these Member States to create a cohesive energy policy under the EEC. For example, the Treaty of Rome allowed Member States to create energy monopolies, interfering with the EEC's goal of developing a common market fueled by free market competition.³²

B. RECENT EFFORTS TO ESTABLISH A SINGLE ENERGY MARKET

In 1987, in an effort to eliminate the barriers hindering inter-Union trade,³³ the Member States enacted³⁴ the Single European Act.³⁵ One

energy policy).

31. *See id.* at 303 (suggesting that Europe's previous attempts to establish a cohesive energy policy were due to an absence of explicit language and implementation framework requiring that such a policy be established). Given the fact that the EEC Treaty contained neither explicit language regarding energy, nor a regulatory structure to enforce the goals of the Treaty, no framework was created to encourage the individual Member States to develop an integrated energy policy. *See id.* (commenting on the lack of energy language or regulatory development); *see also id.* at 302 (discussing the lack of special provisions to deal with the ameliorating energy supply by providing alternative energy sources, which likely played a role in a coal industry crisis in Belgium).

32. *See* Romaniuk, *supra* note 19, at 1025 (examining the shortcomings of the Treaty of Rome in establishing a competitive free market in the European Community).

33. *See* Black, *supra* note 8, at 126-27 (listing the types of barriers that have prevented the development of a single European market). The barriers referred to may be physical, technical, fiscal, and business. *See id.* Article 8(a) of the EEC Treaty eliminated physical barriers and other controls limiting the ability of people and goods to move freely in 1993. *See id.* at 126 (citing EEC TREATY, *supra* note 27, art. 8(a)); Completing the Internal Market: White Paper from the Commission to the European Council, COM(85)310 final at 9-16 [hereinafter Completing the Internal Market] (defining physical barriers and noting their elimination). Technical barriers include inequitable standards in product or environmental policies or procurement requirements. *See* Black, *supra* note 8, at 126-27 (citing The Internal Energy Market: Commission of the European Communities, COM(88)238 final at 15 [hereinafter The Internal Energy Market]) (discussing technical barriers). Finally, fiscal and business barriers include conflicting laws, accounting standards, subsidy regulation and taxation on goods moving across country borders. *See* Black, *supra* note 8, at 127 (defining fiscal and business barriers).

34. *See* Black, *supra* note 8, at 127 (asserting that the Single European Act ("SEA") and the EC Treaty marked an evolution of the EEC Treaty where they sought to strengthen the unity of the Member States and their economies individually and as a whole).

of the principal objectives of the Act was to establish the "Internal Energy Market"³⁶ by 1992.³⁷ In 1988, the European Commission, in its capacity to make policy proposals and draft legislative acts for the Council to Parliament's review,³⁸ examined the varied energy policies of the Member States. The Commission took into account the European Union's energy goals and compiled their findings in a report called the "Internal Energy Market."³⁹ In its April 27, 1988 "Information Memo,"⁴⁰ the Commission concluded that, apart from the social and political disparities among the Member States, the biggest obstacles to creating an internal energy market were concerns about how to prevent Member States from safeguarding their own supplies and whether the legal and regulatory system of the European Union had the authority to prevent such activities.⁴¹ One of the task force members on Community integration noted that in developing an internal energy market, the European Union needed to focus on decreasing the risk of supply shortage and improving the allotment of available resources.⁴²

35. 1987 O.J. (L 169) 1 [hereinafter SEA] (amending EEC TREATY, *supra* note 27).

36. *Common Energy Policy: An Overall View Of Energy Policy And Actions* (visited June 18, 1998) <<http://europa.eu.int/comm/sg/scadplus/leg/en/lvb/127014c.htm>>.

37. See Black, *supra* note 8, at 130 (citing DERRICK WYATT & ALAN DASHWOOD, *EUROPEAN COMMUNITY LAW* 14 (3d ed. 1993)) (reviewing the Act's focus on development of the internal energy market).

38. See *supra* note 8 and accompanying text (defining the responsibilities of the Commission of the European Union).

39. See Fishbane, *supra* note 25, at 349 (noting the Commission's first step to creating an internal energy market pursuant to the SEA).

40. The Commission's Information Memo, of 29 March 1988 (P36). See 27 April 1988 (P(88)52) final at 2-3 (reporting the adoption of the communication); see also The Commission's report to the Council, COM(89) final at 332-36 (proposing an increase in intra-community trade of gas and electricity to continue increasing competition among suppliers).

41. See Fishbane, *supra* note 25, at 349-50 (discussing the findings of the 27 April 1988 Information Memo).

42. See *id.* at 350 (outlining N. Commeau-Yannoussis' comments stating that the energy policy must be capable of creating greater unity among the Member States than a mere economic policy due to the unique nature of energy).

Further, aside from the economic significance of energy, the industry is unique in terms of the diversity of both its products and its end-uses, particularly in Europe.⁴³ Electricity and natural gas systems require significant capital, given their complex networks of generation, transmission, and distribution.⁴⁴ This necessitates a specialized, common policy to promote efficiency, particularly because each Member State has developed its own oil and gas infrastructure.⁴⁵ Thus, in 1990, Directive 90/531,⁴⁶ specifically applicable to water, transport, energy, and communications, opened competition to the European Union.⁴⁷ Two additional Directives are of great import. Directive 90/377, issued on June 29, 1990, establishes a Community procedure to improve the transparency of gas and electricity charged to industrial end users.⁴⁸ Directive 90/547, issued on October 29, 1990, addresses the transit of electricity through transmission grids.⁴⁹

Directive 90/377 requires Member States to ensure that their electricity and gas producing, transmitting and distributing entities report their prices and the details of their pricing mechanisms twice a year, along with an analysis of their consumer base once every two years, to the Statistical Office of the European Communities ("SOEC").⁵⁰

43. See Black, *supra* note 8, at 128 (noting that while coal is not subject to trade within the European Union, oil is quite competitive).

44. See Butler, *supra* note 10, at 21-24 (noting the importance of opening up competition via third party access in order that consumers realize the benefits of an integrated industry).

45. See *id.* at 21 (distinguishing the unique nature of electricity and gas markets and suggesting that efficiency in those markets will result in competition and decreased differences among Member States).

46. See generally Council Directive 90/531, arts. 3-29, 1990 O.J. (L 297) 5-15 (identifying, for example, public procurement rules for the oil and gas industry).

47. See Black, *supra* note 8, at 127 (noting that the function of Directive 90/531 was to eliminate barriers in various industries, specifically energy).

48. See Council Directive 90/377, 1990 O.J. (L 185) 16 (amended by Council Directive 93/87, 1993 O.J. (L 277)) (discussing price transparency Directives).

49. See Council Directive 90/547, 1990 O.J. (L 313) 30 (ordering facilitation of electricity transit between high-voltage grids).

50. Council Directive 90/377, *supra* note 48, art. 4, 1990 O.J. (L 185) at 16-18 (stating requirements for data submission). See generally Barker, Jr. et al., *supra* note 17, at 325 (requiring price data to flow through the SOEC increases the flow of information; therefore, consumers and regulators are more knowledgeable and the market will operate more efficiently).

The SOEC is required to keep all data confidential, and therefore may only publish its data in aggregate form.⁵¹ If the SOEC detects significant abnormalities in the data it receives, it may ask the national authorities for more details.⁵²

Directive 90/547 sets the groundwork for third-party access by defining transit of electricity through transmission grids as requiring "the grid of origin or final destination be situated within the Community and the transport operation involve crossing at least one intra-Community frontier."⁵³ Directive 90/547 mandates negotiation of contracts between the grid operators and the entities in the Member States responsible for importing and exporting electricity.⁵⁴ Further, the Member States must ensure that the grid operators notify the Commission and national authorities of supply contracts that have a duration of at least one year, and also of the termination of such a contract.⁵⁵ Finally, the Directive requires that transit conditions allow free movement, without compromising either the security of supply or reliability of service.⁵⁶ If grid operators violate the conditions of transit, the Directive gives the Commission the authority to enforce this mandate with procedures allocated to them by Community law.⁵⁷

In 1991, the European Energy Charter was signed at The Hague.⁵⁸ Although the primary purpose of the charter was to inject Western

51. Council Directive 90/377, *supra* note 48, art. 4, 1990 O.J. (L 185) at 17 (stating the requirements for confidentiality).

52. *See id.* art. 5, 1990 O.J. (L 185) at 17 (requiring notice to national authorities in cases of abnormal data).

53. Council Directive 90/547, *supra* note 49, art. 2, para. 1(b)(c), 1990 O.J. (L 313) at 31.

54. *See id.* art. 3, para. 1, 1990 O.J. (L 313) at 31 (obligating the negotiation of contracts).

55. *See id.* art. 3, para. 3, 1990 O.J. (L 313) at 31 (discussing requirements relating to the establishment of a contractual relationship where intra-Community sale and transport of electricity are involved).

56. *See id.* art. 3, para. 2, 1990 O.J. (L 313) at 31 (providing conditions to encourage third party open access while maintaining adequate supply and reliable service).

57. *See id.* art. 4, 1990 O.J. (L 313) at 32 (providing redress for violations of transit conditions).

58. *See The Union's Policies-Energy Policy, supra* note 6 (setting forth relevant legislation that led to the Electricity Directive).

investment and knowledge into former Soviet countries, it also established legally binding rules in the areas of trade, energy, competition, investment, and access to capital.⁵⁹ Moreover, the Commission presented a plan creating a Community Action program and a Consultative Committee of industry experts to assist the Commission in developing transmission infrastructures and interconnections from the Member States to the European network.⁶⁰ Because many Member States have their own networks that are not connected to the European network, the Commission decided to implement third party access in three stages.⁶¹ The first stage mandated improved transparency⁶² of electricity and gas prices charged to end-users, and arrangements for transmission of the same between the main networks of the European Union.⁶³ The second stage, which began in 1992, eliminated several restrictions on equal access relative to hydrocarbons, and provided common rules for gas and electricity that recommended third-party open access.⁶⁴ The third stage is the enabling stage, which combines the internal market of its component parts from the previous stages.⁶⁵

59. *Id.*

60. See *Achevement du Marche Interieur du Gaz et de L'Electricite: Communication to Commission of the European Communities*, COM(91)298 Texte E para. 5.2 at 7 [hereinafter *Achevement du Gaz et de L'Electricite*] (outlining the need for a special gas and electricity directive).

61. See Black, *supra* note 8, at 129 n.102 (explaining why the Commission found the need for three stages); see also Butler, *supra* note 10, at 22 (noting that certain Member States, such as Germany, the UK and the Netherlands, already have laws restricting a utility's right to use transmission and distribution systems).

62. See *Internal Market for Energy: Gas and Electricity Price Transparency* (visited June 3, 1998) <<http://europa.eu.int/comm/sg/scadplus/leg/en/lvb/127002.htm>> (defining price transparency by its purpose, which is to increase consumers' freedom of choice by free exchange of information without compromising confidentiality).

63. See *Internal Market For Energy: Current Position and Outlook* (visited June 3, 1998) <<http://europa.eu.int/comm/sg/scadplus/leg/en/lvb/127001.htm>> (delineating the three stages of the European Union's efforts to create a single energy market).

64. See *id.* (discussing requirements of the second stage and noting the conflicting views of third party access among Member States).

65. See *id.* (outlining requirements of the third stage).

In 1992, the Treaty Establishing the European Community,⁶⁶ better known as the Maastricht Treaty, further developed the European Union's goals for a single economic market through the principle of subsidiarity.⁶⁷ The principle becomes effective when Member States cannot adequately address the proposed action because of the size or effect of such proposals, thus allowing the Union to take action outside areas specifically delegated to it.⁶⁸ The formulation of the subsidiarity principle, therefore, ensures a preservation of the rights of each individual citizen within the European Union.⁶⁹

Decision 1254/96 of the Council to the European Parliament, issued on June 6, 1990, established a series of guidelines that covers objectives, priorities, and projects of common interest with respect to the trans-European energy networks.⁷⁰ This Decision, which realized the trans-European objective set forth by Title XII in the Treaty Establishing the European Community, is of critical importance to the creation of a single energy market.⁷¹ The Decision is applicable in electricity networks to high-voltage lines and any equipment necessary for the system to operate properly.⁷² The Community's purpose

66. See TREATY ESTABLISHING THE EUROPEAN COMMUNITY, Feb. 7, 1992, 1992 O.J. (C 224) 1 (1992), [1992] 1 C.M.L.R. 573 (1992) [hereinafter EC TREATY] (establishing important framework for current European Union energy policy, particularly Title XII dealing with trans-European networks). See also 1 PETES E. HERZOG & HAN S. SMIT, THE LAW OF THE EUROPEAN COMMUNITY: A COMMENTARY ON THE EEC TREATY 55 (1998) (explaining that the Treaty on the European Union or Maastricht Treaty added to the European Community by expanding the scope of activities).

67. See generally Paul D. Marquardt, *Subsidiarity and Sovereignty in the European Union*, 18 FORDHAM INT'L L.J. 616, 616-18, 625-28 (1994) (discussing the principle of subsidiarity).

68. See EC TREATY, *supra* note 66, art. 3b (describing the principle of subsidiarity).

69. See *id.* at preamble (noting subsidiarity guarantees "decisions are taken as closely as possible to the citizen").

70. See Council Decision 1254/96, art. 1, 1996 O.J. (L 161) 147, 148 (amended by Council Decision 1047/97, 1997 O.J. (L 152)) (discussing interconnectivity of transmission lines among Member States).

71. See *The Union's Policies-Energy Policy*, *supra* note 6 (discussing the legal base and key policies used to establish the European Union's current energy policy).

72. See Council Decision 1254/96, *supra* note 70, art. 2, para. 1, 1996 O.J. (L 161) at 148 (stating the applicability of Directive 1254/96).

for this Decision—which promotes interconnection, interoperability, access to and development of the networks—is to allow effective operation of the internal energy market, strengthen economic and social cohesion, and reinforce the security of the Community's energy supply.⁷³ The priorities for actions relating to electricity networks include the connection of isolated electricity networks to the interconnected European networks, the development of interconnections between Member States, and the development of interconnections with European countries attempting to accede into the Union, and to contribute to the improvement of reliability and security of supply.⁷⁴ Electricity interconnection projects due for completion by the year 2000 include connections between France and Spain, and France and Italy.⁷⁵

In 1992, the Council to the European Parliament submitted its initial proposal that set forth common rules for a single electricity market.⁷⁶ The European Parliament suggested certain amendments to this draft on November 17, 1993.⁷⁷ The European Commission approved amended proposals drafted by the Directorate General for Energy (DG XVII) on December 8, 1993 for common rules in the electricity sector.⁷⁸ On December 19, 1996, the Council and the European Par-

73. See *id.* art. 1, 1996 O.J. (L 161) at 148 (delineating purposes of Directive 1254/96).

74. See *id.* art. 3, 1996 O.J. (L 161) at 148 (listing priorities of Directive 1254/96).

75. See *The Union's Policies-Energy Policy*, *supra* note 6 (outlining the projects for interconnection that are to be completed by the year 2000).

76. See *Gas/Electricity: Commission Unveils Amended Internal Market Proposals*, EUR. ENERGY (Europe Information Service), Dec. 17, 1993, at No. 414 (identifying the inception of the Electricity Directive).

77. See *id.* (examining the process of review the Electricity Directive underwent).

78. See *id.* (finding that the amended proposals differed significantly from both the original Directive submission and the European Parliament's suggestions for amendments). The Directorate General's amendments addressed the concerns of the European Parliament differently, even though the concerns accounted for the Directorate General's amendments. See *id.* (listing the European Parliament's concerns as "supply security, environmental protections, small consumer protection, transparency and price discrimination, recognition of the structural differences of existing systems, and provisions of transition service"). Further division between the Parliament and Commission on the amended proposal was evident regarding the division of the amended proposals into seven chapters. See *id.* (observing that

liament adopted Directive 96/92 ("Electricity Directive") as a culmination of the European Union's decades of efforts to establish a single market in electricity.⁷⁹ The Electricity Directive marks an important step toward the development of a single internal energy market in Europe as it requires Member States to implement legislation—specifically relating to electricity—by combining elements of previous Directives that promote competition through the elimination of barriers, while assuring reliable service and security of supply.⁸⁰ Therefore, an examination of the text of the Electricity Directive is appropriate.

II. THE MANDATES OF THE ELECTRICITY DIRECTIVE

A. THE APPLICABILITY TO MEMBER STATES

The purpose of the Electricity Directive is to establish common rules⁸¹ for the generation,⁸² transmission,⁸³ and distribution⁸⁴ of electricity. Article 3 requires Member States to implement their electricity undertakings in conformance with the principles of the Electricity

the Commission approved amendments different from both the original proposal and the Parliament's amendments).

79. See generally Electricity Directive, *supra* note 14, 1997 O.J. (L 027) at 20-34 (providing common rules for a single market in electricity).

80. See *id.* at preamble, 1997 O.J. (L 027) at 20-22 (discussing the intent behind creating this Directive). Furthermore, the Council to the European Parliament required that the Member States implement the mandates of the Directive by February 19, 1999. See *id.* art. 27, 1997 O.J. (L 027) at 29 (setting forth the effective date of the legislation).

81. See *id.* art. 1, 1997 O.J. (L 027) at 22 (establishing rules for the organization and functioning of electricity sector, market access, and the procedure applicable to calls for tender, the granting of authorizations, and operation of systems).

82. See *id.* art. 2, para. 1, 1997 O.J. (L 027) at 22 (defining generation as "the production of electricity").

83. See *id.* art. 2, para. 5, 1997 O.J. (L 027) at 22 (defining transmission as the "transport of electricity on the high voltage interconnected system with a view to its delivery to final customers or to distributors").

84. See *id.* art. 2, para. 6, 1997 O.J. (L 027) at 22 (defining distribution as "the transport of electricity on medium-voltage and low-voltage distribution systems with a view to its delivery to customers").

Directive, thereby taking into account the principle of subsidiarity.⁸⁵ However, Article 3 does permit Member States to opt out of several important Articles if they can sufficiently justify their decision.⁸⁶

B. RULES RELATING TO THE GENERATION OF ELECTRICITY

Articles 4 through 6 constitute Chapter III, which deals with rules relating to the selection of power generation sources.⁸⁷ Article 4 provides some flexibility, allowing Member States to choose⁸⁸ between an authorization procedure⁸⁹ or a tendering procedure.⁹⁰ Article 5 re-

85. See Electricity Directive, *supra* note 14, art. 3, para. 1, 1997 O.J. (L 027) at 23 (creating a mandate for Member States to implement the principles of this Directive, which include attaining a competitive market in electricity through nondiscriminatory undertakings as to rights or obligations). Article 3, therefore, creates the link necessary for European Union law to require action by Member States to implement the measures of the Directive. See also EC TREATY, *supra* note 66, art. 3b (establishing the principle of subsidiarity within the structure of the European Union).

86. See Electricity Directive, *supra* note 14, art. 3, para. 3, 1997 O.J. (L 027) at 23 (stating that Member States may choose not to apply provisions of Articles 5, 6, 17, 18 and 21 if doing so would be contrary to the general economic interest of the State insofar as it would either hinder the performance of the State's existing obligations or impede the interest of the Community in developing trade). When a Member State claims that implementing the above mentioned articles would hinder their public service obligations, they must clearly define such obligations and notify the Commission promptly. See *id.* (requiring that existing public service obligations be "transparent, nondiscriminatory and verifiable").

87. See *id.* arts. 4-6, 1997 O.J. (L 027) at 23-24 (discussing criteria for establishing competition in generation).

88. See *id.* art. 4, 1997 O.J. (L 027) at 23 (discussing the ability of Member States to choose which generation procedure best suits their internal structure); see also Harper, *supra* note 4, at 601 (noting that the relative sizes and structures of Member States' energy industries play a role in maintaining national control as opposed to following a comprehensive European Union energy policy).

89. See Electricity Directive, *supra* note 14, art. 5, para. 1, 1997 O.J. (L 027) at 23 (requiring a Member State opting for an authorization procedure in generation to establish a list of criteria for granting authorizations for constructing new generation facilities). The Article lists the criteria a Member State may consider in formulating its own authorization standards. See *id.* (listing, among other things, "safety and security of the electricity system, protection of the environment, energy efficiency, and characteristics particular to the applicant"); see also *Gas/Electricity: Commission Unveils Amended Internal Market Proposals*, *supra* note 76, at No. 414 (recognizing differences in Parliament's amendment recommendations and the Commission submissions for the Directive Article relating to authorization procedures).

quires that each Member State make public the criterion established for the authorization procedure.⁹¹ Moreover, the Member State must give the applicants who were denied authorization well-justified, nondiscriminatory reasons supporting the decision.⁹² Finally, the Article provides for an appeals process.⁹³

Article 6 similarly requires that the appropriate body publish the detailed specifications of the tendering procedure in the *Official Journal of the European Communities*.⁹⁴ Article 6 provides Member States with the flexibility to designate an authority—public or private—which is independent of generation, transmission, and distribution functions, to organize, monitor, and control the tendering procedure.⁹⁵

90. See Electricity Directive, *supra* note 14, art. 6, para. 1, 1997 O.J. (L 027) at 23 (mandating that either the Member State or a designated body establish a tendering procedure by creating “an inventory of new means of production, including replacement capacity, . . . [and by taking into account] the need for interconnection of systems . . .”). The tendering procedure then allocates capacity, which is based on a regular estimate of generating and transmission capacity likely connected to the system, the need for other interconnectors, the potential transmission capacity, and the demand for electricity. See *id.* (discussing the elements of the regular estimate needed to create the tendering procedure).

91. See *id.* art. 5, 1997 O.J. (L 027) at 23 (relating to the importance of transparency in creating a nondiscriminatory energy market); see also *Community Laws: Delays in the Transposition of Energy Legislation*, *supra* note 5, at No. 496 (finding that implementation of price transparency mandates was completed in all Member States).

92. See Electricity Directive, *supra* note 14, art. 5, para. 2, 1997 O.J. (L 027) at 23 (ensuring justifiable reasons behind denial of applications for authorization as such reasons and denials are forwarded to the Commission).

93. See *id.* (mandating that Member States establish an appeal process).

94. See *id.* art. 6, para. 3, 1997 O.J. (L 027) at 24 (relating to the transparency of procedures to ensure a nondiscriminatory market in generation); see also *Community Law: Delays in the Transposition of Energy Legislation*, *supra* note 5, at No. 496 (outlining the completion of implementing price transparency legislation in Member States).

95. See Electricity Directive, *supra* note 14, art. 6, para. 5, 1997 O.J. (L 027) at 24 (noting that the designated body must keep the tendering procedure nondiscriminatory and the information submitted by each applicant confidential).

C. RULES RELATING TO TRANSMISSION SYSTEM OPERATION

Articles 7 through 9 constitute Chapter IV of the Directive, addressing transmission system operation.⁹⁶ Article 7 requires Member States, or transmission system owners at the direction of the Member States, to designate a system operator⁹⁷ obligated to operate, ensure the maintenance of, and, if necessary, develop both a transmission system and its interconnectors with other systems to guarantee the security of supply.⁹⁸ Article 7 further mandates Member States to implement certain nondiscriminatory, objective requirements⁹⁹ to guarantee the interoperability of systems.¹⁰⁰ To ensure nondiscriminatory behavior on the part of the system operator, Article 7 requires that the operator be independent of any generation and distribution activities, at least from a management standpoint.¹⁰¹ Article 8 further

96. *See id.* arts. 7-9, 1997 O.J. (L 027) at 24-25 (discussing rules relating to transmission system operation in the European Union).

97. *See id.* art. 7, para. 1, 1997 O.J. (L 027) at 24 (establishing the responsibilities of the system operator). These responsibilities include managing energy flows in the system while accounting for exchanges with interconnected systems to ensure the security, reliability, and efficiency of the electricity system as well as guarantying the availability of necessary ancillary services. *See id.* art. 7, para. 3, 1997 O.J. (L 027) at 24 (discussing the duties of the system operator). Article 2 defines ancillary services as "all services necessary for the operation of a transmission or distribution system." *Id.* art. 2, para. 14, 1997 O.J. (L 027) at 22. Article 7 charges the system operator with the duty not to discriminate between system users or classes thereof. *See id.* art. 7, para. 5, 1997 O.J. (L 027) at 24 (stating that the system operator must operate the transmission system in a nondiscriminatory manner so as not to favor its own subsidiaries or shareholders).

98. *See* Electricity Directive, *supra* note 14, art. 7, para. 1, 1997 O.J. (L 027) at 24 (discussing the appointment and responsibilities of the system operator).

99. *See id.* art. 7, para. 2, 1997 O.J. (L 027) at 24 (noting that the Member States must notify the Commission of their requirements). Article 8 of Council Directive 83/189 provides this reporting requirement, which established the procedure for information exchange in technical standards and regulations. *See* Council Directive 83/189, art. 8, 1983 O.J. (L 109) 8, 11 (setting forth procedural standards for technical requirements).

100. *See* Electricity Directive, *supra* note 14, art. 7, para. 2, 1997 O.J. (L 027) at 24 (requiring Member States to publish and implement minimum technical design and operational standards for connection of generation assets, distribution systems, and interconnector circuits).

101. *See id.* art. 7, para. 6, 1997 O.J. (L 027) at 24 (noting the independence requirement of the system operator to ensure nondiscriminatory management of the transmission system); *see also* *Gas/Electricity: Commission Unveils Amended In-*

discusses the responsibilities of the system operator in terms of determining the use of interconnectors with other systems and the dispatch of generating installations.¹⁰² Lastly, Article 9 requires the system operator to preserve the confidentiality of information acquired in the course of carrying out its responsibilities.¹⁰³

D. RULES RELATING TO DISTRIBUTION SYSTEM OPERATION

Chapter V encompasses Articles 10 through 12,¹⁰⁴ addressing distribution system operation.¹⁰⁵ Article 10 allows Member States to obligate distribution companies to supply customers in a particular area.¹⁰⁶ As seen with the transmission system operator, the Member States, or owners of distribution companies, must designate a distribution system operator having the same responsibilities as the transmission system operator.¹⁰⁷ Article 11 establishes that the distribution system operator must maintain "a secure, reliable and efficient elec-

ternal Market Proposals, *supra* note 76 (discussing independence requirement of the transmission system operator). *Cf.*, *e.g.*, Order No. 888, *supra* note 10, 18 C.F.R. pts. 35, 27, 38; Order No. 888-A, *supra* note 10, 18 C.F.R. pts. 35, 37 (establishing guidance provisions for establishing independent governance and financial interests of system operators in the United States).

102. *See* Electricity Directive, *supra* note 14, art. 8, para. 1, 1997 O.J. (L 027) at 24. Article 8 further mandates that the system operator make nondiscriminatory decisions regarding generating installations and interconnections. *See id.* art. 8, para. 2, 1997 O.J. (L 027) at 24.

103. *See id.* art. 9, 1997 O.J. (L 027) at 25 (stating confidentiality of information as a requirement for the system operator in carrying out its duties).

104. *See id.* arts. 10-12, 1997 O.J. (L 027) at 25 (discussing the responsibilities of the distribution system operator); *see also Gas/Electricity: Commission Unveils Amended Internal Market Proposals*, *supra* note 76 (rejecting Parliament's recommendation to allow Member States to retain their power over local and regional distribution authorities in favor of merely allowing Member States to define the rights and public service obligations assigned to distribution companies and their customers).

105. *See* Electricity Directive, *supra* note 14, arts. 10-12, 1997 O.J. (L 027) at 25 (discussing the scope of Chapter V).

106. *See id.* art. 10, para. 1, 1997 O.J. (L 027) at 25 (stating further that Member States may regulate a distributor by imposing a tariff on supplies in order to ensure equal treatment of customers).

107. *See id.* art. 10, para. 2, 1997 O.J. (L 027) at 25 (outlining the responsibilities of the distribution system operator); *cf. supra* notes 97-98 and accompanying text (discussing the responsibilities of the transmission system operator).

tricity distribution system in its area, with due regard for the environment."¹⁰⁸ Similar to Article 9, Article 12 requires the distribution system operator to preserve the confidentiality of information acquired in the course of carrying out its responsibilities.¹⁰⁹

E. RULES ADDRESSING UNBUNDLING AND TRANSPARENCY OF ACCOUNTS

Chapter VI consists of Articles 13 through 15, and addresses the concepts of unbundling¹¹⁰ and transparency¹¹¹ of accounts.¹¹² Transparency of accounts requires electric companies, regardless of their ownership structure, to organize, submit to an audit, and publish their annual accounts.¹¹³ The concept of unbundling relates to transparency of accounts in that integrated electricity undertakings¹¹⁴ are required

108. Electricity Directive, *supra* note 14, art. 11, para. 1, 1997 O.J. (L 027) at 25.

109. *See id.* art. 12, 1997 O.J. (L 027) at 25 (requiring preservation of the confidentiality of sensitive information obtained by the distribution system operator in the course of business).

110. *See id.* arts. 14-15, 1997 O.J. (L 027) at 25-26 (describing unbundling as a literal separation of transmission, distribution, and generation accounts).

111. *See id.* arts. 13-14, 1997 O.J. (L 027) at 25-26 (establishing transparency of accounts by granting Member States, a designated authority, or dispute settlement authorities the right of access to generation, transmission, and distribution accounts).

112. *See id.* arts. 13-15, 1997 O.J. (L 027) at 25-26 (discussing how Member States must achieve unbundling and transparency of accounts); *see also* Council Directive 78/660, 1978 O.J. (L 222) 11 (establishing national law concerning annual accounts of limited liability companies which set a framework for the Electricity Directive's mandates for transparent accounts); and Council Directive 83/349, art. 42, 1983 O.J. (L 193) 1, 15 (requiring recording of transactions of a certain size conducted between affiliates in financial statement footnotes); *Gas/Electricity: Commission Unveils Amended Internal Market*, *supra* note 76 (rejecting Parliament's suggestion to include cost, not just price, transparency requirements).

113. *See* Electricity Directive, *supra* note 14, art. 14, para. 2, 1997 O.J. (L 027) at 25 (indicating that undertakings not legally obliged to publish their annual accounts shall keep a copy in their home office for review by the public).

114. *See id.* art. 2, para. 17, 1997 O.J. (L 027) at 22 (defining an "integrated electricity undertaking" as one that is either vertically or horizontally integrated). A vertically integrated undertaking performs two or more of the functions of generation, transmission, or distribution. *See id.* art. 2, para. 18, 1997 O.J. (L 027) at 22 (defining vertical integration in electricity). A horizontally integrated under-

to keep separate their internal accounts for their generation, transmission, and distribution activities.¹¹⁵

F. RULES ADDRESSING ACCESS PROCEDURES

Chapter VII contains Articles 16 through 22, which address the organization of access to the system.¹¹⁶ Member States are allowed to select either one or both of the organizational procedures set forth in Articles 17 and 18.¹¹⁷ Article 17 addresses an organizational procedure called "negotiated access to the system."¹¹⁸ This procedure requires each Member State to take measures that allow electricity generating entities, supply undertakings, and eligible customers, whether inside or outside the territory of the system, to negotiate access to the system and to complete supply contracts with each other based on voluntary commercial agreements.¹¹⁹

Article 18 addresses an alternative system access procedure called the "single buyer procedure."¹²⁰ This procedure requires the Member State to appoint a legal person to be the single buyer of power within

taking performs at least one of the functions of generation, transmission or distribution, and another non-electricity activity. *See id.* art. 2, para. 19, 1997 O.J. (L 027) at 22 (defining horizontal integration specific to electricity).

115. *See id.* art. 14, para. 3, 1997 O.J. (L 027) at 25 (noting that unbundling may also require consolidated accounts for other, non-electricity activities to avoid discrimination, cross-subsidization, and distortion of competition); *see also Gas/Electricity: Commission Unveils Amended Internal Market Proposals*, *supra* note 76 (finding that the Electricity Directive does not require unbundling of management, but rather guarantees the independence of the network system operator).

116. *See* Electricity Directive, *supra* note 14, arts. 16-22, 1997 O.J. (L 027) at 26-28 (setting forth various procedures Member States may select, as well as baseline rules with which Member States must comply, in order to operate their electricity systems in conformance with the European Union energy principles of objectivity, transparency, and non-discrimination).

117. *See id.* art. 16, 1997 O.J. (L 027) at 26 (discussing the opportunity for Member States to select the procedures best suited to the internal structure of their own electricity system).

118. *Id.* art. 17, 1997 O.J. (L 027) at 26.

119. *See id.* art. 17, para. 1, 1997 O.J. (L 027) at 26 (describing the principle of negotiated access to the system).

120. *See id.* art. 18, 1997 O.J. (L 027) at 26-27 (setting forth the framework for the single buyer system access procedure).

the territory governed by the relevant system operator.¹²¹ Article 19 discusses the goals Member States must achieve in order to create a single market in electricity, and concludes with a provision allowing for Commission supervision over the opening of electricity markets.¹²²

G. OTHER PROVISIONS

Article 22 mandates that Member States create a regulatory regime, as well as control and transparency mechanisms to protect against abuses of dominant positions and other anti-competitive behaviors.¹²³ Finally, Chapter VIII, which includes Articles 23 through 29, addresses a variety of issues, including emergency supply short-

121. See *id.* art. 18, para. 1, 1997 O.J. (L 027) at 26 (defining the single buyer procedure).

122. See Electricity Directive, *supra* note 14, art. 19, 1997 O.J. (L 027) at 27 (discussing goals Member States must work toward in establishing a single electricity market in the European Union). These goals include a variety of measures related to previous articles. For example, Member States must provide legislation that ensures that contracts proposed under the provisions of Articles 17 and 18 obtain finalization to a significant level. See, e.g., *id.* art. 19, para. 1, 1997 O.J. (L 027) at 27 (mandating the completion of existing contracts to decrease system use by independent, local parties and increase use among various Member States). Article 19 further requires reduced national energy consumption goals. See *id.* art. 19, para. 2, 1997 O.J. (L 027) at 27 (creating thresholds for reduction of energy consumption on a national level by increments of GWh per the first three years after implementation of this Directive then another reduction of GWh three years after the first reduction). Member States must also specify which customers and distribution companies remain eligible to contract within the provisions of Articles 17 and 18. See *id.* art. 19, para. 3, 1997 O.J. (L 027) at 27 (requiring Member States to publish a listing of these eligible customers and the specifications for eligibility). If Member States fail to comply with the reporting requirements relating to eligible customers, the Commission has the authority to exercise its powers to implement these requirements under Procedure I of Council Directive 87/373. See *id.* art. 19, para. 4, 1997 O.J. (L 027) at 27 (discussing authority of the Commission to implement these goals within Member States if the Member States fail to do so); see also Council Directive 87/373, art. 2, 1987 O.J. (L 197) 33, 33-34 (discussing actions the Commission may take against a Member State for noncompliance with the Directive).

123. See Electricity Directive, *supra* note 14, art. 22, 1997 O.J. (L 027) at 28 (mandating that Member States implement regulations and controls to ensure that a fair, competitive electricity market exists).

ages and transition services, as well as Member States' obligations to implement this Directive.¹²⁴

H. REVIEWING THE SUCCESS OF THE ELECTRICITY DIRECTIVE

The Electricity Directive, thus far, has successfully furthered the establishment of a framework for a competitive market in electricity.¹²⁵ A primary example of this framework is that the Directive provides several options for implementation of certain requirements, such as the negotiated access versus single buyer options for power purchases.¹²⁶ These types of options within the text of the Directive

124. See *id.* arts. 23-29, 1997 O.J. (L 027) at 28-29 (discussing the final provisions of the Electricity Directive). Specifically, Article 23 provides the Member States with the ability to take necessary measures in the instance of sudden crisis in the energy market. See *id.* art. 23, 1997 O.J. (L 027) at 28 (establishing energy emergency provisions). Article 24 provides the safeguard of allowing a Member State to apply to the Commission for transitional service if the Member State had commitments, or guarantees of operation created prior to the implementation of this Directive that became void as a result of the provisions of this Directive. See *id.* art. 24, para. 1, 1997 O.J. (L 027) at 28-29 (requiring the establishment of transition service as the market shifts from regulated to deregulated). Article 25 requires the Commission to report on the overall progress of harmonization of the European Union's energy market, not linked to the provisions of the Electricity Directive, within one year of the implementation of the Directive. See *id.* art. 25, para. 1, 1997 O.J. (L 027) at 29 (requiring the examination of the overall progress of the European Union in achieving a single market in electricity.) Under this article, the Commission retains the authority to make additional proposals. See Electricity Directive, *supra* note 14, art. 25, para. 2, 1997 O.J. (L 027) at 29. Article 27 requires Member States to create laws, regulations, and administrative provisions needed to comply with the provisions of this Directive by February 19, 1999. See *id.* art. 27, para. 1, 1997 O.J. (L 027) at 29 (mandating that Member States create the necessary legislation to implement the provisions of the Electricity Directive). The Commission gave Belgium and Ireland one-year extensions and Greece a two-year extension to apply the provisions of this Directive due to the technical characteristics of their electricity systems at the time this Directive was created. See *id.* art. 27, para. 2, 1997 O.J. (L 027) at 29; *Electricity Directive Enters Into Force on February 19*, EUR. ENERGY (Europe Information Service), Feb. 14, 1997, at No. 485 (indicating that the Commission gave Member States extended deadlines to implement the Electricity Directive).

125. See *Community Law: Delays In The Transposition of Energy Legislation*, *supra* note 5, at 1 (declaring that 87% of energy sector measures were implemented by the end of 1996); see also Harper, *supra* note 4, at 604 (maintaining that substantial privatization has occurred in Spain, France, Germany, and the United Kingdom prior to the implementation of the Electricity Directive).

126. See Electricity Directive, *supra* note 14, arts. 16-18, 1997 O.J. (L 027) at

account for the different existing electricity structures in the Member States.¹²⁷

In direct opposition to its purported objective, however, the Directive has several shortcomings that may hinder the development of a truly competitive market.¹²⁸ First, the Directive does not require environmental protection.¹²⁹ Rather, it suggests that Member States need only consider the environment in establishing competitive electricity markets.¹³⁰ Second, the Directive relies on other treaties for enforcing its objectives instead of including enforcement provisions within the Directive's own text.¹³¹ For example, Article 85(1) of the EEC Treaty prohibits a Member State from anti-competitive behavior.¹³² Strict compliance with the above provision, however, would render ineffective the Electricity Directive's Article 23 provision, which allows a Member State to temporarily take safeguard measures to ensure the security of its energy supply in emergency situations.¹³³ The Direc-

26-27; *see also supra* text accompanying note 117 (allowing each Member State to select a system access procedure best suited for the existing structure of that Member State's electricity system).

127. *See* Electricity Directive, *supra* note 14, 1997 O.J. (L 027) at 20; *see also supra* text accompanying note 86 (discussing the ability Member States have to opt out of certain provisions including, among others, Articles 17 and 18, if the implementation of those provisions would be contrary to their general economic interest).

128. *See generally* 3 *Hurdles Seen for Electricity Deregulation*, ENN DAILY NEWS (June 3, 1998) <<http://www.enn.com:80/news/ennstories/1998/06/060398/dereg.asp>> (indicating several problems that may occur in a deregulated electricity environment).

129. *See generally* Electricity Directive, *supra* note 14, 1997 O.J. (L 027) at 20 (finding no language in any provision that requires environmental protection).

130. *See id.* art. 5, 1997 O.J. (L 027) at 23 (suggesting that Member States consider environmental protection as they develop criteria for authorizing the construction of generating facilities).

131. *See* Romaniuk, *supra* note 19, at 1030 (analyzing the function of Article 90 of the EEC Treaty to police for anti-competitive behavior).

132. *See* EEC TREATY, *supra* note 27, art. 85(1) (prohibiting "all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention or distortion of competition . . .").

133. *See generally* Fishbane, *supra* note 25, at 318 (questioning whether the application of Article 85(1) of the EEC Treaty, which prohibits competition distortions, works contrary to companies operating within the framework of the International Energy Program provision, which requires countries to equitably distribute

tive itself should have its own enforcement mechanisms rather than relying on other treaties that contain provisions that may be contrary to certain provisions of the Electricity Directive.¹³⁴

III. AN ANALYSIS OF ENGLAND AND WALES' IMPLEMENTATION OF THE ELECTRICITY DIRECTIVE'S REQUIREMENTS

For several reasons, England and Wales provide illustrative examples of the progress European Union Member States have made in complying with the mandates of the Electricity Directive. First, England and Wales are the global forerunners in privatization efforts.¹³⁵ These two states began privatization initiatives in 1989 under the guidance of the 1989 Electricity Act, which predates the Electricity Directive. The effects of privatization, therefore, are more obvious in England and Wales.¹³⁶ Second, for the past forty years, the public sector in these two countries, as in most other countries, owned the industry.¹³⁷ Finally, the experience of England and Wales also illustrates some of the implementation problems that require European Union action.¹³⁸

A. ENGLAND AND WALES—PRE-PRIVATIZATION

England and Wales nationalized their electricity supply industries following World War II because of a perpetual and problematic

oil in a time of crisis).

134. See generally *id.* at 319-20 (concluding that the Commission utilized EEC Treaty Article 85(3) to negate the restrictive effects of subsection one of the Article and illustrating the inefficiency of a process that requires searching for loopholes to negate restrictive effects of prior legislation that could be avoided by including enforcement provisions within the new legislation).

135. See *The UK Electricity System* (visited June 19, 1998) <http://eerr.notes.org/uk/how_work.htm> (recognizing England and Wales as the prototypes of electricity privatization).

136. See *The UK Electricity System*, *supra* note 135 (establishing the inception of privatization in the United Kingdom).

137. See *id.* (noting the prior ownership structure of the energy industry in the United Kingdom, and most other countries throughout the world).

138. See, e.g., *infra* text accompanying note 204 (discussing structural problems occurring in England and Wales resulting from functional unbundling of generation, transmission, and distribution).

shortage of generating supply.¹³⁹ The nationalized structure in England and Wales yielded one company in charge of generation and transmission, the Central Electricity Generating Board ("CEGB"), and twelve distribution companies, referred to as area boards, responsible for maintaining and building distribution lines in specific areas.¹⁴⁰

The idea of privatizing this industry began in the 1980s under Margaret Thatcher's Conservative Party Government, which argued that public ownership bred inefficiencies, particularly in the case of utilities.¹⁴¹ The Conservative Party further believed that monopoly power in the industry was not necessary to ensure reliable service at reasonable prices.¹⁴² While these general rationales lead in part to the

139. See *Electricity Reform Abroad and U.S. Investment: The Structure of U.K. Electricity Prior to Privatization* (last modified Oct. 22, 1997) <<http://www.eia.doc.gov/emen/pgem/electric/ch2/1.html>> (addressing the original nationalization of the electricity industry in the U.K.).

140. See *The U.K. Electricity System*, *supra* note 135 (discussing the makeup of the pre-privatized electricity industry in the United Kingdom). The area boards were obligated to purchase power from the CEGB at a uniform national tariff, the Bulk Supply Tariff. See *id.* (demonstrating the fact that area boards had little control over the pricing of power they were required to purchase). The CEGB was perceived as efficient in terms of its constructing and operating the transmission grid, and dispatching power, but was perceived as lacking in purchasing, managerial, and planning skills. See *id.* (examining strengths and weaknesses of the CEGB). Because it was government owned, the CEGB had little flexibility in purchasing and was forced, by government policy, to make purchases from British companies, regardless of whether the CEGB could have secured a lower price elsewhere. See *id.* (noting government influence over the CEGB's purchasing policies, which often resulted in purchases made at higher prices). The CEGB's managerial incompetence was evidenced in matters ranging from its lack of oversight in construction projects resulting in cost-overruns to over-staffing headquarters. See Michael C. Brower et al., *The British Electricity Restructuring Experience: History and Lessons for the United States* (Nat'l Council on Competition and the Electric Utility Indus., East Sussex, United Kingdom), Oct. 1996 (visited June 19, 1998) <<http://eerr.notes.org/uk/restdaba/h.htm>> (discussing the CEGB's managerial problems); see also Leigh Hancher, *The Public Sector as Object and Instrument of Economic Policy*, in *LAW AS AN INSTRUMENT OF ECONOMIC POLICY* 165, 188 (Terence Daintith ed., 1988) (discussing the Conservative Party's transformation of the CEGB).

141. See Brower et al., *supra* note 140 (discussing the inception of privatization in the United Kingdom under the leadership and ideals of the Conservative Party).

142. See *id.* (setting forth the rationales of the Conservative Party behind their privatization of the utility industry). The authors note that other considerations

privatization of the electricity industry, three additional factors contributed to the ultimate formation and timing of privatized electricity in England and Wales.¹⁴³ First, the government of the United Kingdom wanted to promote nuclear electricity generation, which would be difficult in a completely competitive, privatized market.¹⁴⁴ Second, the government sought to undermine the power of the National Union of Mineworkers, which historically was against the Conservative Party.¹⁴⁵ Third, the Thatcher Administration wanted to complete the energy privatization process before the next election in order to ensure its implementation.¹⁴⁶

B. ENGLAND AND WALES—PRIVATIZED

The present structure of the English and Welsh electric industries required privatizing the twelve area boards into Regional Electricity Companies (“RECs”) and splitting the CEGB into four separate entities, three of them as competing generating companies and the fourth

played into the United Kingdom’s decision to privatize their utility industry. *See id.* (discussing the government’s less obvious reasons for privatization). One such consideration was the government’s desire to implement a “share-owning democracy” whereby the public owns large portions of privatized companies. *See id.* (desiring public ownership of companies, but seeking to establish a low risk of loss to the investor to successfully implement this idea). Another factor the Conservative Party considered in deciding whether to implement privatization was their desire to raise revenues. *See id.* (noting that revenues raised by privatization were approximately \$1.5 billion a year). Finally, a subtle factor influencing the government’s decision was that a privatization program would weaken the then-powerful trade unions. *See id.* (describing that trade unions prior to privatization had the power to shut down government-owned businesses).

143. *See id.* (noting three additional factors specific to the electricity industry privatization initiative).

144. *See id.* (reasoning that the privatized structure of the industry would be conducive to the nuclear energy sector due to its risky and capital-intensive nature, if the government establishes incentives to ensure generation companies continue purchasing power from nuclear energy manufacturers).

145. *See id.* (reasoning that a privatized electric industry would no longer force power purchases from British companies, thereby forcing price reductions or lost business to cheaper foreign competitors, each having the effect of reducing Union power).

146. *See id.* (noting the three-year time frame before the next election to complete privatization of the electricity industry and fearing reversal of the process if the Conservatives lost the subsequent election).

as a monopoly transmission company.¹⁴⁷ The RECs retained the same responsibilities as did the area boards, which maintain and construct distribution lines for their respective regions.¹⁴⁸ The RECs, however, were subject to an accounting change whereby the monopoly function¹⁴⁹ was split from the supply business¹⁵⁰ that was subject to competition.¹⁵¹ This functional separation satisfies the Electricity Directive's Chapter V mandates regarding the establishment of a distribution system operator,¹⁵² as well as the requirements set forth in Chapter IV regarding unbundling and transparency of accounts.¹⁵³

C. GENERATION IN PRIVATIZED ENGLAND AND WALES

The old CEBG was divided into two large fossil fuel generators—National Power and PowerGen—and a nuclear generator—Nuclear Electric.¹⁵⁴ Shares in National Power and PowerGen were offered on the London Stock Exchange and sold to the private sector, while Nu-

147. See Brower et al., *supra* note 140 (discussing the privatized structure of England and Wales' electric utility industry); see also *The UK Electricity System*, *supra* note 135 (discussing the privatized structure of the electricity industry in the England and Wales).

148. See *The UK Electricity System*, *supra* note 135 (noting further that each REC maintained control over its franchise area until 1998 when customers are scheduled to choose their own power suppliers).

149. See Brower et al., *supra* note 140 (defining the monopoly function of the RECs as the physical infrastructure of the distribution wires).

150. See *id.* (including functions such as purchasing and selling power to end-users as elements of the supply business subject to competition).

151. See *id.* (analyzing the changes in the structure of the RECs due to privatization).

152. See Electricity Directive, *supra* note 14, arts. 10-12, 1997 O.J. (L 027) at 25 (addressing the establishment and requisite duties of the distribution system operator); see also *supra* notes 107-08 and accompanying text (discussing the responsibilities of the distribution system operator).

153. See Electricity Directive, *supra* note 14, arts. 13-15, 1997 O.J. (L 027) at 25-26 (addressing unbundling and transparency of accounts); see also *supra* notes 110-15 and accompanying text (discussing Electricity Directive's mandates for price transparency and unbundling of accounts in establishing system access criteria).

154. See *The UK Electricity System*, *supra* note 135 (discussing the division of the CEBG into three generation companies).

clear Electric remained in the public sector until 1996.¹⁵⁵ These three generating companies, when initially privatized, did not have a captive market in England and Wales, however, and were subject to competition from other United Kingdom generation companies, such as Scottish Power and Hydro-Electric.¹⁵⁶

The electricity generation market within England and Wales, and throughout the entire United Kingdom, is becoming increasingly more competitive.¹⁵⁷ This increased level of competition is due in part to an increasing number of market entrants.¹⁵⁸ There are several reasons behind the increasing number of competitors entering the generation market. First, the use of natural gas plants instead of coal plants has significantly decreased the operating expenses of generating companies due to the current low market price of natural gas.¹⁵⁹ Second, the lower costs of constructing and maintaining power producing facilities has allowed more entrants into the market.¹⁶⁰ Conse-

155. *See id.* (setting forth the ownership structure of the United Kingdom's generation companies since the privatization initiative); *see also supra* text accompanying note 145 (reasoning that the nuclear generation facility likely remained in the public sector due to the government's desire to protect nuclear development).

156. *See The UK Electricity System, supra* note 135 (noting that the three old CEBG generating companies in England and Wales are now competing with electricity companies from different countries).

157. *See id.* (discussing the increased level of competition in electricity generation).

158. *See id.* (relating increased competition in the generation market to new market entrants).

159. *See id.* (describing that gas power generation facilities decrease operating expenses due to the low cost of combined cycle gas turbines, "CCGTs," the short construction times of gas plants, and less externality expense due to reduced emissions of toxic gases as compared to coal power generating facilities). The downside of these inexpensively constructed and operated gas plants is that demand for energy in the United Kingdom is forecasted to rise minimally over the next decade, thereby edging older plants, such as nuclear facilities that require more capital to operate, out of business. *See id.* (discussing the problem of increasing generation market entrants with decreased demand for power); *see also* Brower et al., *supra* note 140 (noting that protection of nuclear power may have created a weakness in the British electricity restructuring initiative).

160. *See The UK Electricity System, supra* note 135 (alluding to the fact that lower start-up prices allow entry into the market, which increases competition).

quently, while the cost of power decreases, the price of power on the open commodity market, called "the Pool," should decrease.¹⁶¹

D. TRANSMISSION IN PRIVATIZED ENGLAND AND WALES

The last entity formed by the breakup of the CEGB was the company established to own and operate the transmission system, the National Grid Company ("NGC").¹⁶² The NGC's mission is to facilitate competition and administer "financial settlement following the trading of electricity in the wholesale competitive market through NGC Settlements, Ltd."¹⁶³ Originally, the RECs jointly held majority ownership of the NGC; but, in December 1995, the NGC was listed on the stock market for ownership by the private sector.¹⁶⁴

The NGC's establishment is the most important element to the newly restructured electricity industry for several reasons. First, the NGC has a statutory duty to develop and maintain a reliable, efficient, and economic transmission system, as well as to promote competition in supply and generation.¹⁶⁵ Moreover, the NGC is responsible for environmental preservation as it relates to the regulation of plant emissions.¹⁶⁶ These statutory obligations are well-aligned with the requirements set forth in Chapter IV of the Electricity Directive relating to the establishment of a transmission system operator and its duties.¹⁶⁷

161. *See id.* (noting power is traded in the United Kingdom by the energy commodity market called the Pool).

162. *See* Brower et al., *supra* note 140 (noting the formation of the National Grid Company ("NGC") when English and Welsh electricity systems were privatized).

163. *The UK Electricity System, supra* note 135.

164. *See id.* (noting the original and current ownership structure of the NGC). *But see infra* text accompanying note 204 (emphasizing that the RECs continue to be major shareholders of the NGC).

165. *See id.*

166. *See id.*

167. *See* Electricity Directive, *supra* note 14, arts. 7-9, 1997 O.J. (L 027) at 24-25 (setting forth responsibilities and duties of a transmission system operator); *see also supra* notes 97-98 and accompanying text (discussing further responsibilities of the transmission system operator under the Electricity Directive).

When England and Wales established the NGC as the transmission system operator, its independence of generation and supply activities was mandated.¹⁶⁸ This requirement complies nicely with the Electricity Directive's mandate set forth in Article 7, which states that the system operator must be independent—at least in terms of management—from activities unrelated to transmission.¹⁶⁹ Further, the independence requirement contributes to the unbundling portions of the Electricity Directive in Articles 13 through 15, which state that should the same entity carry out transmission, distribution, and generation, there must be separate accounts for each function.¹⁷⁰

The NGC's primary purpose is to provide open, nondiscriminatory access to the transmission grid system in England and Wales.¹⁷¹ In order to do this, the transmission system operator has three major responsibilities. First, it must define the technical requirements necessary for connection and ensure that those requirements are nondiscriminatory.¹⁷² This responsibility complies with Article 7 of the Electricity Directive, which requires the Member States to ensure that minimal technical guidelines exist for connections.¹⁷³ In England and Wales, the government delegated this responsibility to the inde-

168. See *The UK Electricity System*, *supra* note 135 (noting that requiring independence of the transmission system operator did not necessarily have to occur within the structure of a privatized electricity system).

169. See Electricity Directive, *supra* note 14, art. 7, 1997 O.J. (L 027) at 24 (requiring the system operator to remain independent from non-transmission activities, specifically management activities).

170. See *id.* arts. 13-15, 1997 O.J. (L 027) at 25-26 (discussing requirements of unbundling and transparency of accounts); see also *supra* notes 113-15 and accompanying text (discussing how vertically and horizontally integrated undertakings must utilize unbundling principles, at least in their internal accounting systems).

171. See *The UK Electricity System*, *supra* note 135 (addressing NGC's responsibilities in operating the transmission grid system).

172. See *id.* (listing examples of technical requirements, such as quick non-discriminatory response to connection requests, that the NGC requires the transmission system operator to consider).

173. See Electricity Directive, *supra* note 14, art. 7, 1997 O.J. (L 027) at 24 (setting forth the Member State's obligation to ensure baseline standards for technical design are established in order to promote interoperability among the Member States).

pendent system operator.¹⁷⁴ Second, the NGC is given three-months in which to respond to requests for connection to the transmission system.¹⁷⁵ This duty complies with the mandate of Article 8 of the Electricity Directive, which states that the transmission system operator has the responsibility of determining the dispatch of generating installations and use of interconnections within its area.¹⁷⁶ Finally, NGC is required to produce a Seven Year Statement, which analyzes information compiled from its years of operation and projects future structure and usage of the system to assist customers in making prudent investment decisions.¹⁷⁷ This reporting requirement parallels one of the main purposes of the Electricity Directive, which is making information public and accessible.¹⁷⁸

The NGC splits its charges¹⁷⁹ for the use of the system by generators and suppliers into two elements, namely, connection¹⁸⁰ and use.¹⁸¹ These charges are published¹⁸² and regulated.¹⁸³ Publishing the

174. See *supra* text accompanying note 172 (discussing England's delegation of responsibility for ensuring baseline technical requirements exist to the transmission system operator).

175. See *id.* (noting the obligation of the NGC to expeditiously respond to connection requests).

176. See Electricity Directive, *supra* note 14, art. 8, 1997 O.J. (L 027) at 24-25 (noting the transmission system operator's duty to determine use of interconnections and dispatch of generating installations); see also *supra* note 102 and accompanying text (discussing the transmission system operator's obligation to make such determinations in a nondiscriminatory manner).

177. See *The UK Electricity System*, *supra* note 135 (establishing the requirement for NGC to produce a report used to enhance investment decisions).

178. See Electricity Directive, *supra* note 14, art. 8, 1997 O.J. (L 027) at 24-25 (discussing the transmission system operator's requirement of publishing criteria for the use of interconnectors); see also *supra* text accompanying note 102 (discussing the necessity for the transmission system operator's impartiality in conducting its business).

179. See *The UK Electricity System*, *supra* note 135 (computing different charges throughout England's fourteen zones for transmission system use and connection based on costs associated with connection relative to the location of the demand).

180. See *id.* (levying connection charge on any user directly connected to the system, and basing the charge on the net asset value of the user's connection).

181. See *id.* (levying a use charge on suppliers and generators connected to and using the transmission grid system).

182. See *id.* (publishing charges to ensure cost awareness and nondiscriminatory

charges to promote nondiscriminatory behavior and transparency of charges¹⁸⁴ conforms to the Electricity Directive's mandates for such behaviors described in Articles 7 and 8, respectively.¹⁸⁵ At 10:00 a.m. every morning, the NGC is responsible for determining scheduling and subsequent dispatch in a process based on "day-ahead bid price."¹⁸⁶ From this price, the NGC formulates a scheduling plan, which accounts for all actions necessary to ensure the reliable operation of the grid, and formulates an idea of which power stations will be required to produce electricity the next day.¹⁸⁷

E. DISTRIBUTION AND SUPPLY IN PRIVATIZED ENGLAND AND WALES

The distribution¹⁸⁸ and supply responsibilities of the English and Welsh privatized electricity systems were delegated to the twelve

cost allocation).

183. *See id.* (regulating the transmission system in England and Wales based on an RPI minus X equation, whereby RPI equals the retail price index and X, the efficiency variable, equaled three percent until 1997). In 1997, England required an initial cost reduction of 20%, followed by RPI minus 4% for each subsequent year through 2001. *See id.* (discussing the pricing formula for transmission use and connection).

184. *See id.* (illustrating that transparency of charges allows customers to ascertain where the charges are derived, providing a downward pressure on prices). Further, this practice has resulted in increased awareness of customer's needs by companies. *See id.* (evidencing this heightened corporate awareness by recent innovations in the electricity market).

185. *See Electricity Directive, supra* note 14, arts. 7-8, 1997 O.J. (L 027) at 24-25 (requiring the transmission system operator to use nondiscriminatory behavior in its dealings and publish criteria used in determining interconnection and use).

186. *The UK Electricity System, supra* note 135. The day-ahead bid price for generating units is a complex pricing structure that accounts for forecasted demand to establish the Pool purchase price. *See id.* (examining NGC's price setting mechanism). This system creates an atypical commodity market because the commodity, electricity, is incapable of being stored. *See id.* (discussing the reasons the electricity market is unique).

187. *See id.* (stating NGC's scheduling task encompasses accounting for factors such as reserve requirements and voltage control).

188. *See id.* (providing that a distribution network monitors and operates assets that transport power from grid supply points to the ultimate user of that power over low-voltage lines or underground cables). The voltage of these lines ranges from three volts to 132,000 volts. *See id.* (distinguishing lower voltage distribution lines from transmission lines carrying high voltage).

RECs.¹⁸⁹ Like the transmission system, the distribution system is susceptible to noncompetitive monopoly behavior due to the limited number of lines; thus, distribution system charges are likewise regulated.¹⁹⁰ The English and Welsh electricity supply systems are structured so that a company must hold a supply license¹⁹¹ to sell electricity.¹⁹²

189. *See id.* (identifying the entities responsible for the distribution and supply of electricity to 22 million customers in England and Wales). RECs ensure competition by providing open access to their systems in a non-discriminatory manner. *See id.* (obligating nondiscriminatory open access on the part of the RECs). This obligation conforms to the mandates of the Electricity Directive of the European Union in Articles 10 and 11 which mandate nondiscriminatory open access. *See* Electricity Directive, *supra* note 14, arts. 10-11, 1997 O.J. (L 027) at 25 (ensuring equal treatment of customers utilizing the relevant distribution network).

190. *See The UK Electricity System, supra* note 135 (noting similar monopolistic structure of distribution and transmission systems). Distribution system charges, like transmission system charges, are regulated by the RPI minus X formula. *See id.* (noting distribution charges are established by the same RPI minus X formula that establishes transmission system charges); *cf. supra* note 183 (discussing RPI minus X formula as applied in the transmission context). The regulator, applying the RPI minus X formula, proposed that distribution charges should be reduced between 11% and 17% on April 1, 1995, depending on the REC, with a 2% reduction each of the following years. *See The UK Electricity System, supra* note 135 (formulating reduction proposals from 1995 through 1999 to reduce overall charge of distribution).

191. *See The UK Electricity System, supra* note 135 (recognizing the names of these type of licenses are the "Public Electricity Supply" license and the "second tier" license). The Public Electricity Supply license allows RECs holding such a license certain rights and obligations to sell electricity within its designated service area. *See id.* This license is equipped with price controls instituted by the regulator since RECs currently serve a captive (monopoly) market. *See* Brower et al., *supra* note 140 (establishing that the license is regulated similar to the distribution system's RPI minus X formula, differing in that the regulated charges include only those specific to the supply of electricity, such as added costs and margins, that cannot be passed through to other functions like purchase, transmission, or distribution). The second tier license was implemented to create competition, allowing the RECs to obtain this license to supply electricity to customers with larger requirements. *See The UK Electricity System, supra* note 135 (providing RECs the ability to sell electricity to larger customers outside of their territory, and finding that 43% of those customers purchase electricity from a supplier not designated as their REC). In 1998, this competitive market became available to all supply customers. *See* Brower et al., *supra* note 140 (indicating that the REC franchises are scheduled to be removed in 1998 allowing all customers to select their own suppliers).

192. *See The UK Electricity System, supra* note 135 (providing the requirements

The Director General for Electricity Supply ("Director General") issues the pricing and licensing controls.¹⁹³ The government appoints the Director General, who is responsible for enforcing the principles of the open electricity market.¹⁹⁴ Currently, under the REC captive market regime, the RECs and the Director General have jointly developed codes of practice that govern the manner in which business is conducted with franchise customers.¹⁹⁵ This practice fulfills the mandates of Article 22 of the Electricity Directive, which requires Member States to create devices for regulation to protect customers.¹⁹⁶ To date, the Director General has approved two types of performance standards:¹⁹⁷ Guaranteed Standards¹⁹⁸ and Overall Standards.¹⁹⁹

F. REVIEWING THE SUCCESS OF ENGLISH AND WELSH PRIVATIZATION

Although some have hailed the privatization of the electricity industry in England and Wales successful, because prices of electricity in England have declined approximately two percent since the implementation of privatization,²⁰⁰ there have been three notable criti-

for holding a license to sell electricity in England and Wales).

193. See Brower et al., *supra* note 140 (observing the Director General for Electricity Supply ("Director General") was charged with making regulatory decisions with the guidance of the Office of Electricity Regulation).

194. See *The UK Electricity System*, *supra* note 135 (reporting the Director General's responsibility for ensuring and protecting the development of competition and the protection of customers).

195. See *id.* (illustrating areas covered by the codes of practices to enhance customer service including items such as energy efficiency, complaint procedures, and services for disabled or elderly customers).

196. See Electricity Directive, *supra* note 14, art. 22, 1997 O.J. (L 027) at 28 (requiring Member States to establish a regulatory regime to protect customers from anti-competitive behavior).

197. See *The UK Electricity System*, *supra* note 135 (referring to the customer service standards set forth by the RECs and agreed upon by the regulator).

198. See *id.* (describing "Guaranteed Standards" as required service levels that, if not met, mandate payment by the company to the customer).

199. See *id.* (defining "Overall Standards" as the minimal level of functions a customer has a right to expect but the company is not required to guarantee).

200. See *The UK Electricity System*, *supra* note 135 (noting electricity price decrease since privatization, not accounting for inflation).

cisms.²⁰¹ A noteworthy concern, however, is that corporate profits have increased in conjunction with electricity price reductions.²⁰² Financial data from generation, transmission, and distribution companies show that shareholders, rather than consumers, received most of the benefits of these companies' cost savings due to privatization.²⁰³ This is especially troublesome since the NGC's major shareholders are the RECs, thereby creating dividend profit from NGC investment in addition to higher bottom-line profits for the RECs.²⁰⁴

A second concern is that the Pool does not appear to operate as intended.²⁰⁵ The Pool prices have been volatile, which is not in itself problematic; however, the Pool prices have not accurately reflected the marginal cost of producing the power.²⁰⁶ This problem was identified by Frank Wolak, a professor of economics at Stanford University, as "a natural outcome of the political give-and-take that inevitably accompanies a switch from a monopolistic market structure to a

201. See Frank Wolak, *Electricity Deregulation Doesn't Mean Low Prices*, ENN DAILY NEWS (January 24, 1997) <<http://www.enn.com/enn-news-archive/1997/01/012497/01249703.asp>> (asserting that the English and Welsh privatized systems contain market flaws). *But see* Michael Tebo, *Study Shows Energy Deregulation is Lowering Costs*, ENN DAILY NEWS (May 15, 1997) <<http://www.enn.news/enn-news-archive/1997/05/051597/05159706.asp>> (asserting that competition in energy has resulted in lower prices to consumers). The success of an initiative such as privatization is typically measured by examining whether the initiative made the relevant economy more efficient, created competition, and reduced prices to the consumer. See Brower et al., *supra* note 140 (remarking on the various tests examined to determine the success of industry restructuring).

202. See Brower et al., *supra* note 140 (observing that the increase in corporate profits illustrates concerns that the financial benefits attained from privatization are not being passed on equitably to the consumers).

203. See *id.* (detailing that company shareholders are reaping the benefits of higher profits due to lower costs instead of passing them on to consumers).

204. See *id.* (emphasizing the RECs as shareholders of the NGC).

205. See *id.* (summarizing that the Pool was intended to create a market whereby past Pool prices provide a point of reference for new pricing, and variations in prices from day-to-day signal customers as to the timing and quantity of electricity purchased).

206. See *id.* (noting that Pool prices, thus far, are determinative only of National Power and PowerGen costs, not the entire competitive market, therefore, these two companies appear to have market dominance and the market is not truly competitive).

so-called 'competitive' one."²⁰⁷ Professor Wolak suggests that in order to rectify this problem, regulators must play a role in designing and managing the new, competitive market.²⁰⁸

Finally, with the removal of the REC structure in distribution, there is significant concern about mergers.²⁰⁹ The government's right to veto REC mergers and REC ownership expired in March 1995.²¹⁰ The purchase of the RECs by the larger electricity companies, such as National Power and PowerGen, led to three problems. First, mergers and takeovers reduce the number of competitors from which consumers can choose, thereby lessening competition among the companies.²¹¹ Second, decreased competition resulting from the reintegration of these transmission, distribution, and generation companies to their pre-privatization structure may lead to anti-competitive practices such as self-dealing and price-fixing.²¹² Third, horizontal integration, which occurs when a company merges with a company that provides similar end products,²¹³ can harm competition by diluting the company's original focus in its core competence as it expands into different types of business practices.²¹⁴

207. Wolak, *supra* note 201.

208. *See id.* (suggesting that, in the case of England and Wales, where only a few dominant suppliers exist, regulators should require dominant companies to sell some of their generating assets to prevent the market dominance and market price setting abilities currently seen with National Power and PowerGen).

209. *See* Brower et al., *supra* note 140 (expressing concern that larger companies will buy smaller companies creating further market concentration).

210. *See id.* (expanding on concerns over the development of an anti-competitive market in the newly privatized electricity industry); *see also* Romaniuk, *supra* note 19, at 1029-32 (identifying Article 90 of the EEC Treaty as the European Commission's tool to prevent Member States from implementing anti-competitive laws while noting the Article is only implicated *if Member States enact measures violative of the EEC Treaty or other European Community treaties*).

211. *See* Brower et al., *supra* note 140 (stating that the result of mergers is industry consolidation, which limits competition).

212. *See id.* (contending that in a deregulated industry there is a possibility of anti-competitive behavior if transmission, distribution, and generation companies reintegrate via merger or takeover).

213. *See id.* (defining horizontal integration using the example of a hydro-power generation company purchasing a coal power generation plant).

214. *See id.* (discussing the threat to consumers resulting from horizontal integration).

IV. THREE PROBLEMS OF PRIVATIZATION, AND PROPOSED SOLUTIONS

Proponents of restructuring the electricity industry claim that problems caused by deregulation will be solved by the free, competitive market mechanisms.²¹⁵ This is not necessarily so. The Commission must learn from the English and Welsh privatization initiative in order to create a more effective single market in electricity. There are three significant problems that require special provisions within the Electricity Directive and subsequent Member State legislation.²¹⁶

A. POWER PRODUCING INDUSTRY PROTECTIONS

First, certain power-generating industries appear to require protection at the outset of deregulation to ensure that their contributions to the electricity supply are maintained.²¹⁷ For example, because nuclear generating facilities are expensive to build and maintain, those plants produce more expensive power.²¹⁸ In a truly competitive market, electricity supply customers would not purchase power from these facilities because the supplier's costs would be higher than their competitors, thus forcing companies producing nuclear power out of the market.²¹⁹ Moreover, if the expense of operating and maintaining

215. See Tebo, *supra* note 201 (maintaining that markets have vehicles, such as hedging instruments, that allow for companies to manage price risks). Hedging instruments "allow large commercial and industrial consumers to lock in energy prices over a period of time and free themselves from the price volatility that characterizes short-term trading." *Id.*

216. See *3 Hurdles Seen for Electricity Deregulation*, *supra* note 128 (reporting potential flaws in a deregulated electricity market).

217. See *Coal Industry: Unions Call For European Policy*, EUR. ENERGY (Europe Information Service), June 5, 1998, at No. 515 (emphasizing the need for an European Union policy protecting the coal industry because liberalizing the energy industry creates competition for more expensive coal production, and Central and Eastern European countries aspiring to accede into the Union are coal-producing countries).

218. See Interview with Linda Lee, Supervisory Attorney, Federal Energy Regulatory Commission (July 20, 1998) (describing reasons why nuclear power is so costly).

219. See Wasserman, *supra* note 1 (finding nuclear reactors uneconomical and asserting natural gas, due to its low cost, would dominate a competitive electricity

a nuclear plant forces nuclear energy generating facilities out of the competitive market, customers would not only face the possibility of a supply shortage but also would be forced to bear the cost of decommissioning these plants, a bill that can run into millions of U.S. dollars.²²⁰

The Electricity Directive did not address specific types of power supply that require protections.²²¹ Instead, the Electricity Directive left such judgments up to each Member State because of the vast differences in types of power generation among the Member States.²²² Due to the potential economic and financial implications discussed above, the protection of nuclear power—although contrary to a truly competitive market—is an important inclusion in Electricity Directive provisions.²²³

B. PROTECTIONS AGAINST MARKET DOMINANCE

The second obstacle to overcome in a deregulated electricity industry is that large companies, such as those in England and Wales,²²⁴ have the potential to manipulate prices, thereby creating a barrier to market entry for smaller firms.²²⁵ The Electricity Directive attempts

market).

220. See Interview with Linda Lee, *supra* note 218 (discussing financial implications to consumers of abandoning currently operating nuclear facilities). See, e.g., Maine Yankee Atomic Power Co., 28 F.E.R.C. para. 61,213 (1984) (illustrating the controversial nature of when and who should absorb a multi-million dollar decommissioning bill when a nuclear power generation plant is shut down).

221. See Electricity Directive, *supra* note 14, art. 5, 1997 O.J. (L 027) at 23 (stating that protection of specific power producing industries is not part of the Electricity Directive).

222. See, e.g., *Energy Council: Gas Liberalisation and the Environment Dominate May 11 Session*, EUR. ENERGY (Europe Information Service), May 20, 1998, at No. 514 (commenting that Denmark currently produces 9% of its energy requirements from renewable resources, primarily by windmills).

223. Cf. Wasserman, *supra* note 1 (remarking that in anticipation of deregulation, utility lobbyists in the United States are demanding up to 40% in surcharges from their consumers in order to pay for the reactors in case no special provisions protecting nuclear utilities are developed).

224. See *supra* text accompanying note 161 (inferring that, since privatization, Pool prices in England and Wales reflect prices set by the two largest companies, National Power and PowerGen, instead of the market).

225. See *3 Hurdles Seen for Electricity Deregulation*, *supra* note 128 (outlining

to overcome this issue by requiring price transparency so that customers know where their charges are coming from.²²⁶ Merely requiring price transparency and further relying on Article 90 of the EEC Treaty²²⁷ to enforce it is inadequate.²²⁸ The same type of law with which England created franchise territories for the RECs must further ensure that there are enough firms competing in the market.²²⁹ By ensuring that the market is fertile for new entrants, no firms will be left to dominate the Pool that is charged with setting prices for electricity in England and Wales.²³⁰

C. PROTECTION AGAINST DEGRADING THE ENVIRONMENT

Finally, deregulation may potentially contribute to the degradation of the environment.²³¹ For example, older coal plants, emitting a variety of greenhouse gases, are inexpensive to operate; thus, power coming from such plants is cheaper than generating power from new plants.²³² In a May 1998 meeting of the European Energy Council,

problem of price manipulation thereby precluding entry of competition).

226. See Electricity Directive, *supra* note 14, arts. 4-6, 1997 O.J. (L 027) at 23-24 (delineating the necessity for transparent prices).

227. See EEC TREATY, *supra* note 27, art. 90 ("Undertakings entrusted with the operation of services of general economic interest or having the character of a revenue-producing monopoly shall be subject to the rules contained in this Treaty, in particular to the rules on competition, insofar as the application of such rules does not obstruct the performance, in law or in fact, of the particular tasks assigned to them.").

228. See Romaniuk, *supra* note 19, at 1025-26 (noting that the Commission often relies on Article 90, which protects against anti-competitive behavior, when legislation, such as the Electricity Directive, does not provide its own mechanism for Commission intervention against market abuses).

229. See *3 Hurdles Seen for Electricity Deregulation*, *supra* note 128 (recommending legislation that contains safeguards against monopolization of the market by a few large firms).

230. See Brower et al., *supra* note 140 (identifying that, currently, 85% of the time, the Pool price in England and Wales is determined by plants owned by National Power or PowerGen).

231. See *id.* (contending that the environment may suffer as a result of electricity deregulation).

232. See *id.* (commenting that the greenhouse gases emitted from energy-producing coal plants are detrimental to the environment, but that nevertheless, burning coal remains a widely used process of energy production due to its cost efficiency).

environmental protection issues dominated the discussion.²³³ John Battle, the United Kingdom Minister for Science, Energy and Industry, and Michael Meacher, the United Kingdom's Environment Minister, stressed the importance of increasing the use of renewable energy sources to ensure adequate energy supply without harming the environment through greenhouse gas emissions.²³⁴

The Electricity Directive merely mentions the need for Member States to consider environmental issues in implementing its mandates.²³⁵ Both the Commission and the Council to the European Parliament are making efforts to protect against an environmental "race to the bottom."²³⁶ Neither the Commission nor the Council for the European Parliament has opined on the structure or details of the Framework Programme.²³⁷ The Framework Programme combines all existing programs, such as Altener II,²³⁸ under one energy policy and further supports the main objectives of security of supply, competition, and the environment.²³⁹

If the Framework Programme were adopted, it would certainly aid in solving the problem of environmental degradation due to opening up competition in the energy industry. The adoption of such a comprehensive program is unlikely, however, as budgets for environmental programs are continually being cut²⁴⁰ and several Member

233. See *Energy Council: Gas Liberalisation and the Environment Dominate May 11 Session*, *supra* note 222 (deciding that the environmental and energy policy are "inextricably linked").

234. See *id.* (recognizing the necessity of cooperation between energy and environmental policy).

235. See, e.g., *Electricity Directive*, *supra* note 14, art. 5, 1997 O.J. (L 027) at 23 (proposing environmental protection as a criterion Member States should consider when deciding to approve construction of new generating facilities).

236. See *Energy Council: Gas Liberalisation and the Environment Dominate May 11 Session*, *supra* note 222 (noting that the European Union's Ministers for Science, Energy and Industry adopted a Resolution regarding the Commission's November 1997 White Paper on renewable energy, agreeing that a 12% target for the European Union's use of renewable energy sources by 2010 is a tenable goal).

237. See *id.* (observing the status of a joint energy/environmental policy).

238. See *id.* (describing Altener II as a program promoting the use of renewable energy sources).

239. See *id.* (discussing the function of the Framework Programme).

240. See *id.* (specifying that Altener II's budget was cut over 25%).

States relying on “dirty” power production industries, such as coal, would face severe economic harm under strict environmental guidelines.²⁴¹ The better solution is to simply incorporate more stringent environmental guidelines into the text of the Electricity Directive.

CONCLUSION

Each of the three problems addressed in this Comment is solved not by the workings of a true free market driven by competition but through specific provisions in European Union law. The Commission faces significant challenges in adopting adequate Resolutions to resolve these issues. Solutions for some of the problems seem to conflict with solutions for others, notably protection of industries and protection of the environment. Underlying everything, the Commission must find solutions agreeable to all Member States, each with distinct economic and political agendas.

241. *See id.* (asserting the reluctance of the Commission and the Council to the European Parliament to implement the Framework Program); *see also Coal Industry: Unions Call for European Policy*, *supra* note 13 (noting that the potential accession of Central and Eastern European coal-producing countries will increase the importance of the coal industry).