

THE ROLE OF GOVERNMENT IN ENERGY MARKETS: A LOOK AT THE MARKET-BASED RATES PROCESS, THE FERC, AND THE FUTURE OF ENERGY MARKETS IN AMERICA^{*}

Andrew Laquet^{**}

I. INTRODUCTION

Recently, escalating energy prices, large-scale blackouts, and energy shortages have struck the United States. The most well-known example is the blackout of the eastern U.S. coast, Canada, and the Great Lakes in August 2003, which left more than fifty million people without power and may have caused up to \$10 billion in damages in the United States alone.¹ More recently, the heat wave gripping much of the nation, combined with derecho storms, in June 2012, “left more than 300,000 people in the Mid-Atlantic states without power (some for as long as a week)”²

Many outages are the result of weather, which is only becoming more extreme.³ Even animals can cause outages, and one case in East Missoula, Montana, involved an outage caused by a fawn dropped on a substation by a bald eagle in March 2011.⁴ All of these outages, as well others not mentioned, are even more damaging when one considers the “ripple effect of disruption and damage far beyond the energy industry’s own domain.”⁵ This ripple effect is astounding. It is estimated that blackouts drain \$80-188 billion from the economy annually.⁶ The amount needed for infrastructure investment is also astounding: “Energy industry spokespeople have called for grid investments of \$56 billion, \$100 billion, and even as

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** J.D. Candidate, Southern Illinois University School of Law, Class of 2013. First and foremost, I would like to thank Professor Patricia McCubbin for her advice and guidance. I would also like to thank my editors for their assistance and my friends and loved ones for their support and encouragement.

1. U.S.-CANADA POWER SYSTEM OUTAGE TASK FORCE, FINAL REPORT ON THE AUGUST 14, 2003 BLACKOUT IN THE UNITED STATES AND CANADA: CAUSES AND RECOMMENDATIONS 1 (2004).

2. See Lisa Margonelli, *Electric Forecast Calls for Increasing Blackouts*, PACIFIC STANDARD (July 13, 2012), <http://www.psmag.com/environment/electric-forecast-call-for-increasing-blackouts-43395/>.

3. See *id.* In particular, storms blowing limbs of trees onto lines or heat waves causing stress and eventually overwhelming the system. *Id.*

4. *Id.*

5. Robert C. Fellmeth, *Plunging Into Darkness: Energy Deregulation Collides with Scarcity*, 33 LOY. U. CHI. L.J. 823, 830 (2002).

6. Margonelli, *supra* note 2.

much as \$450 billion in total electricity infrastructure investments.”⁷ This development has led to numerous ambitious efforts by governments across the globe to combat the issue, because the problem will most likely worsen with a long-term trend of declining energy infrastructure investment and rising energy demand.⁸

In the United States, in particular, the approach has been one of encouraging private investment into infrastructure.⁹ This trend is largely due to the difference in approaches to providing power taken by the United States and other countries. “Unlike many other countries, 72.6% of America’s 120 million households receive their power from corporate-owned utilities, whereas in other countries power has traditionally been provided by a government monopoly.”¹⁰ However, the global approach has been slowly eroding, at least in the world’s industrialized democracies, over the past three decades.¹¹ Governments in the Western world have shown an increased willingness to experiment with market manipulation in energy.¹² These efforts by Western governments have generally not gone smoothly.

Market-based rates (MBRs) signify one area in energy policy where the United States government has moved to an approach that looks to regulate markets more than prices. MBRs generally allow energy sellers to charge rates not based on cost-based theories, but on the going market rate for power in the geographical region. The Federal Energy Regulatory Commission (FERC or Commission) subjects MBRs to a great amount of oversight and control, but to a lesser degree than it exerts over traditional “cost-based rates.”¹³ Both methods of ratemaking are subject to sections

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7. *Lessons from the August 2003 Blackout*, UNION OF CONCERNED SCIENTISTS, http://www.ucsusa.org/clean_energy/smart-energy-solutions/increase-renewables/lessons-from-the-august-2003.html (last revised Sep. 15, 2003).
 8. Joshua P. Fershee, *Misguided Energy: Why Recent Legislative, Regulatory, and Market Initiatives Are Insufficient to Improve the U.S. Energy Infrastructure*, 44 HARV. J. ON LEGIS. 327, 328-29 (2007) (noting demand for energy in the United States is projected to grow at 1.5% annually, while electric transmission investment declined for twenty-three years from 1975 to 1998, and even though investment has recently been on the upswing, it remains below 1975 levels). Also, research and development spending in the electric power sector dropped 74% between 1993 to 2000, representing 0.3% of revenue in the 1995-2000 period. S. Massoud Amin, *U.S. Electrical Grid Gets Less Reliable*, IEEE SPECTRUM (January 2011), <http://spectrum.ieee.org/energy/policy/us-electrical-grid-gets-less-reliable>. This spending further declined between 2000 and 2006 to 0.17% of revenue, which is less than the hotel industry puts into similar spending. *Id.*
 9. Energy infrastructure for the purposes of this Comment includes all infrastructure related to the production, generation, transmission, or distribution of energy. See 18 C.F.R. § 388.113 (2012) (providing the definition of Critical Energy Infrastructure Information).
 10. TYSON SLOCUM, *THE FAILURE OF ELECTRICITY DEREGULATION 2* (2008), available at <http://www.citizen.org/documents/USdereg.pdf>.
 11. David B. Spence, *Can Law Manage Competitive Energy Markets?*, 93 CORNELL L. REV. 765, 765 (2008).
 12. *Id.*
 13. *In re Cal. Wholesale Elec. Antitrust Litig.*, 244 F. Supp. 2d 1072, 1076 (S.D. Cal. 2003).

205 and 206 of the Federal Power Act (FPA),¹⁴ in that rates must be “just and reasonable.”¹⁵ A wholesale seller of energy, in being granted MBR status, must pass through numerous barriers, the most significant of which is the criteria of lacking market power.¹⁶ The overall goal of MBRs was to use competition to “improve efficiency and lower wholesale power prices.”¹⁷

MBRs, though, have not led to this result. By and large, the result has been the higher potential for profits from facilities that do not have market power, and this result has led to increased investments over existing power assets.¹⁸ MBRs are not the answer to America’s energy problems and may in fact worsen them because they are inadequate to spur widespread investment into new power infrastructure or promoting efficiency. This Comment will focus on sections 205 and 206 (hereinafter §§ 824d and 824e, respectively) FPA and specifically discuss the theory behind MBRs, the MBRs, and authorization factors. Part II will discuss §§ 824d and 824e in conjunction with the MBR policy and some of the changes that have taken place since FERC’s victory in *Montana Consumer Counsel v. Federal Energy Regulatory Commission*.¹⁹ Part III will take a look at where FERC is likely to go next, as well as argue MBRs are insufficient to spur investment in new infrastructure, particularly in the area of renewable energy resources, to meet America’s growing demands for power. Also, Part III will advocate for the return of the vertical integration mode of energy delivery, other structural changes to spur investment, and significant government involvement and investment in new infrastructure, particularly investment in transmission.

14. 16 U.S.C. §§ 824d, 824e (2012).

15. *Cal. Wholesale*, 244 F. Supp. 2d at 1077.

16. *See* Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities 72 Fed. Reg. 39,904, 39,907 (July 20, 2007) (codified at 18 C.F.R. pt. 35); *see also* Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities, 71 Fed. Reg. 33,102, 33,102 (proposed June 7, 2006) (to be codified at 18 C.F.R. pt. 35). Note the 2007 rule is the final rule and the 2006 version is from the notice of a proposed rule. Also in the rule’s history is a rehearing and clarification issued subsequent to the final rule. This rehearing is touched upon in this Comment, but not discussed. *See* Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities, 73 Fed. Reg. 79,610 (Dec. 30, 2008).

17. Hon. Joseph T. Kelliher, *Market Manipulation, Market Power, and the Authority of the Federal Energy Regulatory Commission*, 26 ENERGY L.J. 1, 9 (2005).

18. SLOCUM, *supra* note 10, at 14.

19. 659 F.3d 910 (9th Cir. 2011).

II. BACKGROUND

A. Theoretical Basis

The MBR ratemaking scheme is one with relatively humble beginnings. The theory underpinning MBRs, and many of FERC's operations generally, is rooted in the "filed rate doctrine."²⁰ "The 'filed rate doctrine' was developed in the 19th century as part of a program to regulate the ruthless exercise of monopoly power by the Nation's railroads."²¹ To combat the uncompetitive practices of the railroads, Congress passed the Interstate Commerce Act (ICA) in 1887.²² The purpose of the ICA, according to the Supreme Court, was to:

Regulate commerce, whilst seeking to prevent unjust and unreasonable rates, . . . to secure equality of rates as to all, and to destroy favoritism, these last being accomplished by requiring the publication of tariffs, and by prohibiting secret departures from such tariffs, and forbidding rebates, preferences, and all other forms of undue discrimination.²³

Thereafter, a shipper could be charged by a carrier only a rate the carrier had already filed with the Interstate Commerce Commission (ICC).²⁴ Only after the ICC determined the rate charged by the carrier was reasonable could the rate be filed and become effective.²⁵ These rules prohibited private parties from contracting for a price other than the rate filed with the ICC.²⁶

This doctrine was first applied to the power industry in 1951 in *Montana-Dakota Utilities Co. v. Northwestern Public Service Co.*²⁷ In that case, both the petitioner and the respondent were public electric utility companies engaged in interstate commerce.²⁸ These two companies had a relationship through interlocking directorships and joint officers.²⁹ During the course of their relationship, the two interchanged electric energy, shared expenses, and made intercompany contracts establishing rates and charges

20. California *ex rel.* Lockyer v. Fed. Energy Reg. Comm'n, 383 F.3d 1006, 1011 (9th Cir. 2004).

21. *Id.* (quoting *Maislin Industries, U.S., Inc. v. Primary Steel, Inc.*, 497 U.S. 116, 138 (1990) (Stevens, J., dissenting)).

22. *Id.* (quoting *Maislin*, 497 U.S. at 138 (Stevens, J., dissenting)).

23. *Id.* (quoting *N.Y., New Haven & Hartford R.R. Co. v. Interstate Commerce Comm'n*, 200 U.S. 361, 391 (1906)).

24. *Id.*

25. *Id.*

26. *Id.*

27. 341 U.S. 246, 251-52 (1951).

28. *Id.* at 247.

29. *Id.*

which were filed with the Federal Power Commission³⁰ (FERC's predecessor until reorganization in 1977). The petitioner asserted that, during a ten-year period, its predecessor paid respondent unreasonably high prices for what respondent gave them, and that this conduct was fraudulent and unlawful.³¹ The Supreme Court held that "rates filed with and accepted by the Federal Power Commission were not only binding on the parties, but on the federal courts as well."³² Once rates are accepted by the FPA for filing, utilities are obligated to adhere to those rates absent a waiver,³³ and, because the rate filed or fixed by the governing commission is the only lawful charge, "deviation from it is not permitted upon any pretext."³⁴

B. The Federal Power Act

Prior to 1935, regulation of electric power was left largely to state utility commissions.³⁵ This arrangement all changed when Congress passed the FPA and established the Federal Power Commission, now embodied by FERC. By and large, the FPA governs the transmission and wholesale sales of electrical energy in interstate commerce.³⁶ FERC has exclusive jurisdiction over interstate wholesale power rates.³⁷ By far, the primary legal duties of FERC are regulation of wholesale power sales and maintaining just and reasonable rates.³⁸

According to § 824d, all rates charged by a public utility under FERC's jurisdiction must be just and reasonable³⁹ and applied in a non-discriminatory manner.⁴⁰ All rules and regulations pertaining to rates or charges must also be just and reasonable.⁴¹ A rate that is just and reasonable is one that falls within a "zone of reasonableness," which is flanked by the prices an unregulated monopoly would charge on the high side and prices so low an investor would never recover his investment on the low side.⁴² The ratemaking, "less a science than an art,"⁴³ must still be

30. *Id.* at 248.

31. *Id.*

32. California *ex rel.* Lockyer v. Fed. Energy Reg. Comm'n, 383 F.3d 1006, 1012 (9th Cir. 2004) (citing *Montana-Dakota*, 341 U.S. at 251-52).

33. Ark. La. Gas Co. v. Hall, 453 U.S. 571, 577 (1981).

34. Am. Tel. & Tel. v. Central Office Tel. Inc., 524 U.S. 214, 222 (1998).

35. William L. Massey et al., *Reliability-Based Competition in Wholesale Electricity: Legal and Policy Perspectives*, 25 ENERGY L.J. 319, 331-32 (2004).

36. 16 U.S.C. § 824(b) (2012).

37. *Id.*; Nantahala Power & Light Co. v. Thornburg, 476 U.S. 953, 956 (1986).

38. Kelliher, *supra* note 17, at 1-2.

39. 16 U.S.C. § 824d(a) (2012).

40. 16 U.S.C. § 824d(b).

41. 16 U.S.C. § 824d(a).

42. See Kelliher, *supra* note 17, at 3 n.7.

approved by FERC when subject to its jurisdiction. This standard, though, does not require FERC to use any single pricing formula.⁴⁴ Section 824d also requires that all rates for the transmission and sale of wholesale electricity be filed with FERC and published for public review.⁴⁵ Whenever FERC finds that a rate charged by a public utility is unjust, unreasonable, or discriminatory or preferential, FERC must determine the just and reasonable rate and fix the rate by order.⁴⁶

The legal obligation of FERC to prevent unjust and unreasonable rates is absolute.⁴⁷ Typically, FERC prevents the imposition of unjust and unreasonable rates by setting rates for sellers on its own using the cost-based formula, incorporating both cost recovery plus a reasonable rate of return on investment.⁴⁸

The FPA also imposes notice requirements on the rates charged by sellers of wholesale energy in interstate commerce.⁴⁹ Section 824d(c) imposes on public utilities a duty to publicize schedules of all rates and charges.⁵⁰ Section 824d(d) states that no change of rates shall be made by the utility until after sixty days' notice to FERC and the public, unless good cause has been shown.⁵¹ This requirement directly conflicts with the concept of MBRs because of the volatile characteristics that can be taken on by energy supplies.

C. Market-Based Rates: A History

The world of wholesale power markets has changed considerably since the enactment of the FPA in 1935. At that time, there was very little interstate commerce in electricity and limited wholesale sales, meaning electricity markets were nearly completely contained within the respective state borders.⁵² The industry remained stable for a few decades until the blackout of the northeast United States in 1965. The blackout left thirty million people over 80,000 square miles without power for more than twelve hours due to inadequate transmission capabilities and increased

43. *Pub. Serv. Co. of N.M. v. Fed. Energy Reg. Comm'n*, 832 F.2d 1201, 1206 (10th Cir. 1987) (“Although ringing of mathematical precision, the calculation of just and reasonable rate is less a science than an art.”).

44. *Mobil Oil Exploration v. United Distribution Co.*, 498 U.S. 211, 224 (1991) (citations omitted).

45. 16 U.S.C. § 824d(c) (2012).

46. 16 U.S.C. § 824e(a) (2012).

47. Kelliher, *supra* note 17, at 3.

48. *Id.* at 4.

49. *See* 16 U.S.C. § 824d(c)-(d).

50. 16 U.S.C. § 824d(c).

51. 16 U.S.C. § 824d(d).

52. Kelliher, *supra* note 17, at 5.

demand.⁵³ The historic 1965 outage prompted electric utilities to expand their interconnections.⁵⁴ This expansion led to the formation of a transmission grid adequate enough to encourage competition and accelerate wholesale power markets.⁵⁵ Competition was further accelerated by improvements in technology, most notably gas turbine engine technology.⁵⁶ These changes facilitated the growth of non-utility generation of electric power.⁵⁷

Competition in power markets expanded when Congress enacted the Public Utility Regulatory Policies Act of 1978 (PURPA). PURPA's purpose was to promote "competition in wholesale power markets by (1) establishing mandatory purchase obligations, and (2) requiring utilities to purchase generation from facilities that meet certain requirements."⁵⁸ Most notably, many types of small facilities were barred from being owned by utilities,⁵⁹ which led to a great, although unexpected, expansion of electricity generation by independent producers.

Congress then passed the Energy Policy Act of 1992.⁶⁰ Prior to the Energy Policy Act, FERC had no jurisdiction to compel common carrier status on public utilities transmitting power in interstate commerce.⁶¹ This scenario was no longer the case after the 1992 Act and FERC's subsequent Order No. 888. In expanding the scope of FERC jurisdiction, the framers had the intent to develop greater competition by creating a new class of power producers, exempt wholesale generators (EWGs).⁶² The Act did have the effect of expanding entrants into the electricity power market, mainly through the emergence of EWGs, which made up most non-utility generation additions to the market.⁶³

The final evolution of the statutory provisions governing market-based rates and FERC took place within the Energy Policy Act of 2005 (EPAAct). EPAAct was a politically volatile bill. The bill was dubbed the "No Lobbyist

53. 1965: *Great Northeast Blackout*, BLACKOUT HISTORY PROJECT (June 27, 2000), <http://blackout.gmu.edu/events/tl1965.html>.

54. Kelliher, *supra* note 17, at 6.

55. *Id.*

56. *Id.*

57. *Id.*

58. *Id.* at 7.

59. *Id.* at 7 n.31.

60. *Id.* at 7-8.

61. See Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, 62 Fed. Reg. 12274, 12293 (March 14, 1997) (codified at 18 C.F.R. pt. 35). Also, in 1978, Congress expanded FERC's jurisdiction so that it could order transmission, but only in certain circumstances. *Id.* at 12,291. This jurisdiction, however, was created so FERC would have greater scope under its "wheeling authority as a remedy for undue discrimination" in ratemaking. *Id.*

62. Kelliher, *supra* note 17, at 7-8.

63. *Id.*

Left Behind Act of 2005” by Senator John McCain (R-AZ)⁶⁴ and was compared to “lifting the lid of a garbage can and smelling the strong smell of special interests” by John Dingell (D-MI), who was then the top Democrat on the House Committee on Energy and Commerce.⁶⁵ EPAct sought to solve many of the problems plaguing the U.S. energy infrastructure, specifically infrastructure investment, through changing pricing mechanisms and loosening restrictions on corporate structure.⁶⁶

It was this flurry of activity in which FERC began to institute fundamental changes in policy. In 1988, FERC began considering proposals for market-based rate proposals by wholesale suppliers on a case-by-case basis.⁶⁷ Over the course of this ad hoc policy, FERC developed a four-prong analysis to assess whether a seller should be granted market-based rate authority.⁶⁸ Court analysis of the early form of the MBR program found that it satisfied the FPA.⁶⁹ FERC was aware that the transition to open access transmission mandated by Order No. 888 would not alone bring competition to wholesale power prices and that to do so it needed to create a rate structure to encourage use of transmission systems.⁷⁰ As a consequence, FERC moved to clarify and codify the MBR policy by providing a rigorous up-front analysis of when MBRs should be granted in Order 697.⁷¹

D. MBR Authority Factors

In Order 697, FERC required Category 1 or 2 wholesale sellers⁷² of electric power in interstate commerce who were seeking MBR authority to

64. Fershee, *supra* note 8, at 332.

65. *The \$100 Billion Turkey: The No-Lobbyist-Left-Behind Bill Has Arrived*, THE ECONOMIST (Nov. 20, 2003), <http://www.economist.com/node/2235227>.

66. See Fershee, *supra* note 8, at 332.

67. Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities, 71 Fed. Reg. 33,102, 33,102 (proposed June 7, 2006) (to be codified at 18 C.F.R. pt. 35).

68. *Id.*

69. See *Fed. Power Comm'n v. Texaco Inc.*, 417 U.S. 380, 397 (1974) (stating that “the prevailing price in the marketplace cannot be the final measure of ‘just and reasonable’ rates mandated by the Act.”); see also *Elizabethtown Gas Co. v. Fed. Energy Reg. Comm’n*, 10 F.3d 866, 870-71 (D.C. Cir. 1993) (holding that a truly competitive market “provides strong reason to believe that a seller will be able to charge only a price that is ‘just and reasonable’”); *La. Energy & Power Auth. v. Fed. Energy Reg. Comm’n*, 141 F.3d 364, 365 (D.C. Cir. 1998) (“Where there is a competitive market, FERC may rely on market-based rates in lieu of cost-of-service regulation to ensure that rates satisfy the ‘just and reasonable’ requirement.”).

70. See Patrick J. McCormick III & Sean B. Cunningham, *The Requirements of the “Just and Reasonable” Standard: Legal Bases for Reform of Electric Transmission Rates*, 21 ENERGY L.J. 389, 392-93 (2000).

71. See Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities, 71 Fed. Reg. at 33,103.

72. See generally 18 C.F.R. § 35.36(a)(3) (2012). This regulation defines Category 1 sellers as:

submit a market power analysis.⁷³ This market power analysis must address whether the seller has horizontal and vertical market power.⁷⁴ In order to be granted MBR authority, the seller must have demonstrated that it either lacks or has adequately mitigated both horizontal and vertical market power.⁷⁵

1. *Horizontal Market Power*

The first indicative screen a seller must address is whether the seller has horizontal market power. “There [is] a rebuttable presumption that [the] [s]eller lacks horizontal market power if it passes two indicative market power screens: a pivotal supplier analysis based on the annual peak demand of the relevant market, and a market share analysis applied on a seasonal basis.”⁷⁶ Horizontal market power is a greater concern to FERC than vertical market power because it relies more heavily on “competitive forces to assure just and reasonable rates.”⁷⁷

The pivotal supplier analysis determines the seller’s potential to exercise market power based on its uncommitted capacity at peak demand for the area.⁷⁸ Uncommitted capacity is calculated “by adding the total nameplate capacity of generation owned or controlled through contract and first purchases, less operating reserves, native load commitments and long-term firm sales.”⁷⁹ This screen focuses on the seller’s ability to exercise unilateral market power. If the demand of the relevant market cannot be

[W]holesale power marketers and producers that own or control 500 MW or less of generation in aggregate per region; that do not own, operate or control transmission facilities other than limited equipment necessary to connect individual generating facilities to the transmission grid; that are not affiliated with anyone that owns, operates or controls transmission facilities in the same region as the seller’s generation assets; that are not affiliated with a franchised public utility in the same region as the seller’s generation assets; and that do not raise other vertical market power issues.

Id. Simplifying this mystifying language, Category 2 sellers are the larger sellers with more of a presence in the market and are more likely to fail one or more of the indicative screens or pass by a smaller margin than Category 1 sellers. *See* Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities, 72 Fed. Reg. 39,904, 40,004 (July 20, 2007) (codified at 18 C.F.R. pt. 35).

73. 18 C.F.R. § 35.37(a)(1) (2012).

74. 18 C.F.R. § 35.37(b).

75. *See* 18 C.F.R. §§ 35.37-.38 (2012).

76. 18 C.F.R. § 35.37(c)(1).

77. Kelliher, *supra* note 17, at 2.

78. Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities, 72 Fed. Reg. 39,904, 39,909 (July 20, 2007) (codified at 18 C.F.R. pt. 35).

79. Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities, 71 Fed. Reg. 33,102, 33,106 (June 7, 2006) (to be codified at 18 C.F.R. pt. 35).

satisfied without the seller or its affiliates, the utility is pivotal and cannot satisfy this screen.⁸⁰

The second screen is the wholesale market share screen, which is based on the uncommitted capacity owned or controlled by the seller “as compared to the uncommitted capacity of the entire relevant market.”⁸¹ This base is determined by taking into account the “measures for each of the four seasons”⁸² in the area controlled by the seller and each of the control areas directly interconnected to the seller’s.⁸³ This second screen centers on and examines the balancing authority area where the seller’s generation is physically located.⁸⁴ If the seller fails both or either screens, it will be presumed to have market power.⁸⁵

This presumption of horizontal market power may be rebutted with a Delivered Price Test (DPT) analysis, and a utility will either be denied MBR authority or must enter into mitigation with FERC to properly manage their assets to gain MBR authority.⁸⁶ The DPT analysis consists of a threshold of 20% for the market share analysis⁸⁷ and 2500 for the Hirschman-Herfindahl Indices (HHIs).⁸⁸ FERC considers these thresholds in determining whether to presume horizontal market authority on a case-by-case basis and considers factors like available economic capacity, economic capacity, and historical sales and transmission data.⁸⁹

2. Vertical Market Power

The seller must then “demonstrate a lack of vertical market power in wholesale energy markets through the affiliation, ownership or control of inputs to electric power production, such as the transportation or distribution of the inputs to electric power production”⁹⁰

80. Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities, 72 Fed. Reg. at 39,909.

81. *Id.*

82. *Id.*

83. *Id.* at 33,931-32.

84. *Id.* at 33,909.

85. 18 C.F.R. § 35.37(c)(3) (2012).

86. *Id.*

87. Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities, 72 Fed. Reg. at 39,917.

88. The Herfindahl-Hirschman Index, DEP’T OF JUSTICE, <http://www.justice.gov/atr/public/testimony/hhi.htm> (last visited Mar. 25, 2012). Calculating HHIs is easy, as one simply squares the market share of each firm in a market and then sums the resulting numbers; for example if there are four firms with shares of thirty, thirty, twenty, and twenty percent, the HHI is 2600 (900+900+400+400=2600). *Id.* Markets in which the HHI is between 1500 and 2500 are considered moderately concentrated, and those in excess of 2500 are considered concentrated. *Id.*

89. Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities, 72 Fed. Reg. at 39,917.

90. 18 C.F.R. § 35.37(e).

To show this, the seller must have on file with FERC an Open Access Transmission Tariff (OATT).⁹¹ The OATT requirement may be waived by FERC on an ad hoc basis.⁹² Section 35.37(e) of the Code of Federal Regulations states that a seller must provide the following for a vertical market power analysis: a “description of its ownership or control of, or affiliation with an entity that owns or controls, intrastate natural gas transportation, intrastate natural gas storage or distribution facilities; sites for generation capacity development;” and any controlled coal supply sources.⁹³ The main purpose behind FERC’s vertical market power analysis is to ensure that the utility demonstrates that neither it nor its affiliates can erect barriers to entry.⁹⁴

E. *Montana Consumer Counsel v. Federal Energy Regulatory Commission*

An ad hoc coalition made up of the Montana Consumer Counsel, Public Citizen, Inc., and the state attorneys general for Connecticut, Illinois, and Rhode Island challenged Order 697 on its face and argued that Order 697 violated the FPA.⁹⁵ Order 697 was first challenged soon after it became effective, and the petitioners, among others, requested a rehearing.⁹⁶ The rehearing was denied by FERC, and the petitioners filed for review with the Ninth Circuit.⁹⁷ The petitioners contended that: (1) FERC, by relying solely on the market to regulate rates, violated its statutory obligation to ensure rates are just and reasonable; (2) FERC had to provide evidence that competition would drive prices to fair and reasonable levels; and (3) FERC had no intention to review the reports for justness and reasonableness of rates and only intended to check for evidence of market power or manipulation.⁹⁸

On their first contention, the petitioners asserted that FERC could not legally “outsource its regulatory duties to the ‘Invisible Hand’ of the market” and that the MBR process did not take into account the competitiveness of the market as a whole and only focused on the market power of the respective sellers.⁹⁹ The court rejected this argument, stating that this assertion practically “ignore[d] the holdings of the federal courts

91. 18 C.F.R. § 35.37(d).

92. Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities, 72 Fed. Reg. at 39,953.

93. 18 C.F.R. § 35.37(e)(1)-(4).

94. Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities, 72 Fed. Reg. at 39,956.

95. *Mont. Consumer Counsel v. Fed. Energy Reg. Comm’n*, 659 F.3d 910, 914 (9th Cir. 2011).

96. *Id.* at 915.

97. *Id.*

98. *Id.* at 916.

99. *Id.*

on the issue.”¹⁰⁰ The Ninth Circuit agreed with the D.C. Circuit that “in a competitive market, where neither buyer nor seller has significant market power, it is rational to assume that the terms of their voluntary exchange are reasonable and specifically to infer that the price is close to marginal cost, such that the seller makes only a normal return on its investment.”¹⁰¹

The court also disagreed with the petitioners’ second contention that FERC had to conduct empirical analysis in order to ascertain that competition would drive rates to reasonable levels.¹⁰² The court stated that it was a wrong interpretation of *Tejas Power Corp. v. Federal Energy Regulatory Commission*¹⁰³ to impose that requirement on FERC.¹⁰⁴ The *Tejas* court reasoned that if neither buyers nor sellers had market power, the terms of the agreement would be reasonable.¹⁰⁵ The *Montana* court went on to state that, because of FERC’s screening process to detect market power, distorted markets could not control the reigns of the policy.¹⁰⁶ The court did state, in a footnote, however, that if FERC’s screening process did not work in a specific instance, parties could seek to force FERC to comply with its own orders, but because this was a facial challenge, the conduct of FERC was not at issue.¹⁰⁷

The third, and best, contention made by the petitioners was that the MBR policy violated the notice requirement of the FPA.¹⁰⁸ Their argument was that sellers authorized to use MBRs would necessarily violate this requirement because the market price will fluctuate in ways that are unforeseeable.¹⁰⁹ However, FERC contended that the seller files a MBR one time to get MBR authorization, not when the seller later enters into negotiated rates with customers, thereby meeting notification requirements.¹¹⁰ The court favored FERC’s argument because FERC had broad discretion to interpret the FPA’s notice requirement due to the fact that Congress granted FERC this flexibility in the FPA.¹¹¹

The court stated that FERC’s discretion in setting MBRs, however, was not without limit.¹¹² The only real limitation the court spelled out,

100. *Id.*

101. *Id.* (quoting *Tejas Power Corp. v. Fed. Energy Reg. Comm’n*, 908 F.2d 998, 1013 (D.C. Cir. 1990)).

102. *Id.* at 917.

103. 908 F.2d 998.

104. *Mont. Consumer Counsel*, 659 F.3d at 917.

105. *Tejas*, 908 F.2d at 1004.

106. *Mont. Consumer Counsel*, 659 F.3d at 917.

107. *Id.* at 917 n.2.

108. *Id.* at 920.

109. *Id.* at 921.

110. *Id.*

111. *Id.*

112. *Id.* at 918.

though, was that FERC may not determine in advance that the going market rate in a particular region is just and reasonable.¹¹³

Even though the court ruled in favor of FERC, it seemed to express doubt over the effectiveness of the MBR policy by recognizing that the matters at controversy were of paramount importance. Nevertheless, it held that the court was not to take the position of a policy analyst and that it was not the court's place to say whether MBRs were a good idea.¹¹⁴ That being said, this ruling will result in FERC being immune from judicial review in its ratemaking, especially MBRs, because of the rigorousness of the horizontal and vertical market power screens and reporting requirements and the unlikelihood a court sitting in review would question FERC's findings on these subjects due to *Chevron*-style deference.

This immunity, in addition to other reasons to be discussed in Part III, makes MBRs undesirable, in addition to being insufficient to spur investment, because of the increased harm to the consuming public.

III. ANALYSIS

Although FERC seemingly had the best of intentions, with only the pocketbooks of consumers and efficient transmission of power on its mind, it will be argued MBRs are unable to meet the challenges facing the immense problems with America's energy infrastructure for several reasons. Only by creating carefully crafted goals and dealing with economic realities, instead of attempting to make deregulatory rhetoric an actuality, can FERC create a regulatory regime worthy of those purposes. Also, FERC's future in terms of market-based strategies will be considered, and an argument will be made for the return of the vertical integration model of energy delivery. Additionally, other structural changes to spur investment will be proposed, as will significant government involvement and investment in new infrastructure, particularly investment in energy transmission.

A. Inadequacy of MBRs to Incentivize Investment in Infrastructure

In the short term, MBRs seem wholly inadequate to spur investment in infrastructure or, in some instances, encourage behavior contrary to those goals. MBRs have the following problems: (1) the stringency of the screens for MBR authority only allows small players to charge MBRs, which is likely to increase only production facilities, not transmission; (2) market indicators may lag and cause inefficiencies between the time the indicator is

113. *Id.*

114. *Id.* at 922.

discovered and the time proper facilities may be built; (3) not encouraging investment in new facilities, but rather the “flipping” of already existing ones; and (4) the investment MBRs encourage would be in more populated areas, leaving rural areas vulnerable and requiring significant government involvement to alleviate these discrepancies, which seemingly runs counter to market-based policies.

First, the screening process used by FERC seemingly does not allow for a firm to invest significantly in energy infrastructure. This result is due primarily to the limits on the use of MBRs to utilities that cannot change the face of the market. Most of the investment has been in small production operations, such as EWGs, which further congest America’s already strained transmission systems. Conceivably, utilities, EWGs, and other entities could attempt to coordinate joint investments in transmission infrastructure. However, investment in infrastructure is much more difficult when a utility would have to coordinate with another party that may have different interests. This coordination is a difficult task in and of itself and even more so considering infrastructure investment is rare. Developers tend to invest in electricity transmission only when it is “clearly necessary for reliability or where it lowers local costs.”¹¹⁵ These are good reasons to invest in infrastructure, but it is inadequate to meet the needs of the American public because it does not create an effective nationwide network.¹¹⁶

Second, market-based policies with respect to energy would be an inefficient way to create a more extensive energy infrastructure. The market will not respond until there is some sort of indicator to the actors that such an investment is needed. Energy infrastructure investments require a significant amount of time for planning and construction. This time lag could have significant social costs, which will be discussed *infra* in Part III.C.

Third, MBRs, at least in the short term, have not encouraged investment in new facilities, but instead have promoted the “flipping” of already existing ones.¹¹⁷ Due to non-utility companies’ profit motive seeking the higher profits MBRs may produce, a bidding war over existing generation assets ignited, resulting in inefficient allocations of capital.¹¹⁸ Due to the abandonment of certain requirements when the Public Utility Holding Company Act was repealed in 2005, the ability of non-utility companies to own power plants increased.¹¹⁹ These entrants had little interest in making long-term investments to improve infrastructure, but

115. Fershee, *supra* note 8, at 329.

116. *Id.*

117. SLOCUM, *supra* note 10, at 14.

118. *Id.*

119. *Id.* at 15.

instead sought to make higher profits in the short term and then “flip” the generating asset as if it were a piece of high-rise property.¹²⁰

For example, in 2008, Électricité de France arranged to purchase all of Lehman Brothers’s energy trading operations.¹²¹ The April 2008 acquisition of Bear Stearns’s generation assets by JP Morgan Chase gave JP Morgan, when combined with their already-existing energy assets, control over nearly 9000 megawatts (MW) of power generation in the United States.¹²² Also, “Sempra Energy bought nine power plants in 2004 for \$430 million and sold two of them less than two years later for more than \$1.6 billion.”¹²³ This trend merely increases the costs for buyers looking to purchase energy facilities, which in turn only passes costs on to consumers. This misallocation of capital inhibits further investments into renewable sources of energy or investment in cleaner fossil fuels such as natural gas. This misallocation of capital comes at a further cost. Capital which could have gone towards investment in new energy infrastructure instead went to already existing infrastructure. Investment in already existing infrastructure also makes the need for clean sources of energy more important because money that could have gone to building a sufficient renewable infrastructure went to keep older, less clean facilities online longer, increasing the amount needed in terms of government investment to both diversify America’s energy portfolio and curb emissions released in the United States.

Finally, the investment MBRs incentivize will naturally be in more populated areas, leaving rural areas vulnerable to underinvestment. This lack of infrastructure development would require significant government involvement to alleviate these discrepancies, running counter to market-based policies. For example, in February 2010, Google Energy was granted market-based rate authority.¹²⁴ A large company such as Google would, naturally, not be very interested in producing and maintaining a nationwide grid, but instead a high return on investment. Therefore, it is more likely that Google would invest in more populated areas because Google would want to get in on the action when energy prices are high. Even though prices would theoretically drop once capacity began to outpace demand, it would still leave large swaths of the country without adequate infrastructure, leaving the whole system vulnerable.

120. *Id.*

121. *Id.* at 16.

122. *Id.*

123. *Id.* at 15.

124. *FERC Grants Google Energy Market-Based Rate Authority*, RENEWABLE ENERGY INSIGHTS, <http://www.renewableinsights.com/2010/03/ferc-grants-google-energy-market-based-rate-authority/> (last visited Mar. 24, 2012).

Such problems are a natural outgrowth of a market system. Correcting this discrepancy will require significant government involvement due to the importance of having an extensive national power grid. A similar issue occurred when the federal government undertook an initiative to shift telecommunications regulations to a more market-based approach.¹²⁵ These regulations included a Universal Service Fund (USF).¹²⁶ The USF pools funds collected from fees on telecommunications providers to subsidize access to telecommunications in rural areas.¹²⁷ The proceeds of this fund are later provided to companies providing service in these areas in order to compensate them for the higher costs of providing service in rural areas.¹²⁸

When the Internet boom took off, companies invested billions of dollars into communications infrastructure around the world. However, there is debate about whether this increase in investment was due more to the Internet boom than government deregulation of the communications industry.¹²⁹ When the floor to the market collapsed, the remaining infrastructure was sold off and consumers finally benefited from lower prices.¹³⁰ This result would theoretically be possible in the energy industry.

However, it is doubtful that deregulation of this type would work in the energy industry because energy is much more capital intensive than communications. The general trend of investment in energy infrastructure has either been declining or flat-lining since the 1970s despite numerous reform efforts by the government to incentivize investment. Also, the government would very likely need to become involved as it did in the telecommunications industry, by taxing investors in saturated areas in order to subsidize energy infrastructure investment in rural areas.

Regardless of the merits, FERC has been shaping the MBR policy for roughly twenty years and plans to expand the use of the policy in new arenas.

B. The Future of FERC and Market-Based Policies

After the Ninth Circuit declined to unravel what FERC had been working on for twenty years in *Montana Consumer Counsel*, it is important to ask where the Commission goes from here. In its Fiscal Year 2013 Congressional Performance Budget Report, the Commission lists, as its first

125. See Fershee, *supra* note 8, at 350.

126. *Id.* at 349 n.151.

127. *Id.*

128. *Id.*

129. *Id.* 351.

130. *Id.* at 351-52.

strategy, its plans on using market-based means to ensure just and reasonable rates.¹³¹

FERC also intends to explore further market reforms and their use to address barriers to the integration of demand-side resources into wholesale markets.¹³² This plan is very ambitious because it aims to change not the behavior of utilities or producers of energy, but ultimately the consumer by encouraging the pursuit of end-use energy efficiency measures.¹³³ These measures take a number of forms, but there are three main groups. The first is performance standards, where the government compels a utility to implement policies designed to reduce energy demand to a target level.¹³⁴ The next is technology standards, where the government would mandate utilities use a certain technology, such as a special cable.¹³⁵ And finally, there are information measures, which are government mandates to inform consumers of their energy consumption compared to some yardstick so they can become smarter consumers.¹³⁶ FERC has indicated an interest in demand-side reforms to develop transmission services and the implementation of standards adopted by the North American Energy Standards Board (NAESB) in fiscal year 2011 for demand response and energy efficiency.¹³⁷ These proposals run the gambit of demand-side measures, including consumer and utility education, looking at the possible consumer response to dynamic pricing,¹³⁸ and use of informational tools geared to consumers.¹³⁹

FERC is also looking to use market-based rules to permit energy-efficient resources to participate in wholesale markets.¹⁴⁰ FERC believes energy efficiency has the potential to mitigate market power and enhance reliability.¹⁴¹ Naturally, FERC is also considering the use of market-based reforms to allow renewable energy resources to better compete with fossil fuels.¹⁴² For example, the Commission issued a proposed rule in November

131. FED. ENERGY REGULATORY COMM'N, FISCAL YEAR 2013 CONGRESSIONAL PERFORMANCE BUDGET REQUEST 13 (2012) [hereinafter F.E.R.C. 2013 BUDGET], available at <http://www.ferc.gov/about/strat-docs/FY13-budg.pdf>.

132. *Id.* at 14.

133. Edan Rotenberg, *Energy Efficiency in Regulated and Deregulated Markets*, 24 UCLA J. ENVTL. L. & POL'Y 259 (2006).

134. *Id.* at 265.

135. *Id.*

136. *Id.*

137. F.E.R.C. 2013 BUDGET, *supra* note 131, at 14.

138. More plainly, dynamic pricing is the attempt to get consumers to use more energy at non-peak time, such as nights and weekends, through variable market pricing. Rotenberg, *supra* note 133, at 265.

139. See FED. ENERGY REGULATORY COMM'N., IMPLEMENTATION PROPOSAL FOR THE NATIONAL ACTION PLAN ON DEMAND RESPONSE 17 (2011).

140. F.E.R.C. 2013 BUDGET, *supra* note 131, at 15.

141. *Id.*

142. *Id.*

2010 that would reform tariffs for public utilities to encourage the integration of energy resources like wind, solar, and hydropower.¹⁴³

Since the Ninth Circuit granted a great amount of deference to FERC in its ratemaking authority in *Montana Consumer Counsel*, FERC has accelerated the expansion of market-based policies, specifically to change behavior of consumers through demand-side reforms. Such policies were not validated by the *Montana* court, but policies encouraging dynamic pricing and informational standards to change consumer behavior are very likely in the future for energy consumers.

C. Return to Vertical Integration

FERC has primarily used pricing policies as a way to spur investment in energy infrastructure.¹⁴⁴ This use is largely due to the limits of FERC jurisdiction. As previously stated, the first strategy in the FERC 2013 Budget was to ensure just and reasonable rates through regulatory and market means.¹⁴⁵ The goal behind the policy shift to MBRs was “to create competitive pressures that would improve efficiency and lower wholesale power prices.”¹⁴⁶ FERC based this goal on the idea that a competitive marketplace leads to an exchange that is per se reasonable because sellers will seek a return on their investments while consumers will be looking for the best services at lower prices.¹⁴⁷

This outlook, though, is the view that one often sees through rose-colored glasses of market economics. When most consumers, or economists for that matter, think of a market system, the kind most would expect is of the Pareto-optimal nature.¹⁴⁸ Although, in reality, it is more likely any benefits stemming from MBRs would be better represented by the Kaldor-Hicks model.¹⁴⁹ In the case of MBRs, it is likely that the benefit would be providing lower costs and, sometimes, additional profits to industrial and other large users while raising individual rates for many

143. *Id.*

144. Fershee, *supra* note 8, at 344.

145. F.E.R.C. 2013 BUDGET, *supra* note 131, at 13.

146. Kelliher, *supra* note 17, at 9.

147. *Tejas Power Corp. v. Fed. Energy Reg. Comm’n*, 908 F.2d 998, 1004 (D.C. Cir. 1990) (finding that FERC improperly approved a settlement agreement that was designed to “make a market” for natural gas sales via a gas inventory charge).

148. “Pareto optimality” refers to the point at which resources are distributed in a way where no change can be made making someone better off without making someone else worse off.” Fershee, *supra* note 8, at 350 n.154.

149. “Kaldor-Hicks efficiency” is based on the theory of Pareto optimality and can be described as an efficiency that increases benefits to society generally, but may not make everyone better off. *Id.* at 350 n.156. In the case of MBRs, this efficiency could take the form of lower costs to larger users of energy, while having the opposite effect on consumer rates. *Id.* at 350.

consumers.¹⁵⁰ Due to the market realities and demands in the energy industry, a return to the vertical integration model of organization, while flawed, is more desirable.

Economic activity can be organized in three basic ways: markets, contracts, and vertical integration.¹⁵¹ Markets are places or institutions where buyers and sellers compare their valuations of goods, and prices are based on information available to the public.¹⁵² Markets are most efficient where exchanges are for relatively fungible goods where information is easy to obtain.¹⁵³

Vertical integration, however, is the opposite of the market approach. In the energy industry specifically, vertical integration consisted of a single electric utility controlling all generation, transmission, and distribution.¹⁵⁴ This model is most efficient if assets are (1) highly specific to a given use or location, (2) utilized in activities that must be coordinated by a central authority, and (3) exposed to contingencies that are hard to predict.¹⁵⁵ The power industry easily meets every one of these markers because (1) power generation and distribution are highly regional and dependent upon geographic boundaries, (2) power generation is best run by some centralized authority due to the greater ease of running a network when the network is completely controlled by a single entity, and (3) the power industry is exposed to outside factors that are hard to predict, such as price volatility due to shortages, wars, and other contingencies.

The move away from vertically-integrated utilities began as a proposal to prevent the rash of power outages across the country, but now seems to be a case of knights leaning against windmills. Much of the commentary by economists and lawyers advocating for vertical deintegration originated when the Supreme Court made its ruling in *Otter Tail Power Co. v. United States*.¹⁵⁶ The action was brought by the government against Otter Tail to enjoin violations of the Sherman Act because Otter Tail attempted to monopolize and had monopolized the retail distribution of electric power in its service area.¹⁵⁷ Otter Tail did this primarily through (1) the refusal to sell power at wholesale to proposed municipal systems in the communities where it had been retailing power; (2) refusal to transfer electric power

150. *Id.*

151. Robert J. Michaels, *Vertical Integration and the Restructuring of the U.S. Electricity Industry*, POL'Y ANALYSIS, July 13, 2006, at 1, 3. Contracts are outside of the scope of this Comment. However, economies based on contracts are best when there is a non-standardized product, and specific investments are necessary to realize that value. *See id.*

152. *Id.*

153. *Id.*

154. *Id.* at 2.

155. *Id.* at 3.

156. 410 U.S. 366 (1973).

157. *Id.* at 368.

from one utility to another over third party facilities; (3) litigation to delay establishment of other systems; and (4) pressure on other power suppliers to deny municipal systems access to other suppliers through Otter Tail's transmission systems.¹⁵⁸

The Court held that the vertically-integrated utility with market power in transmission had violated antitrust laws by refusing municipal distribution utilities the use of its lines to deliver inexpensive power they had purchased for themselves,¹⁵⁹ and because the municipal utilities had no alternatives, they had to take higher-cost service from Otter Tail.¹⁶⁰ The Court decided vertically-integrated Otter Tail was attempting to monopolize.¹⁶¹ The move for deintegration, in a way, began with trying to avoid the Otter Tail problem, even though that problem already had solutions in antitrust law and the just and reasonable standard operating as safeguards for municipalities and consumers.

In addition to those safeguards, vertical integration has a number of advantages over a vertically-deintegrated system. The North American Electric Reliability Council (NERC)¹⁶² noted inefficiencies resulting from the uncoordinated planning and investment decisions that are the result of vertical deintegration:

The close coordination of generation and transmission planning is diminishing as vertically integrated utilities divest their generation assets and most new generation is being proposed and developed by independent power producers. Once new generation is announced, the necessary transmission additions to support it must still be designed, coordinated with other generation and transmission additions, and constructed. Since these activities are no longer carried out within a single organization, more time will need to be allowed to coordinate and perform these tasks to properly integrate the new generation to ensure reliability before it can come into service.¹⁶³

These delays have social and environmental costs as well. Because of the time it takes to construct these assets, consumers are the ones who suffer the duration of the period between market signals of infrastructure problems and the completion of improvements to address those

158. *Id.*

159. *Id.* at 381.

160. *Id.* at 378.

161. *Id.* at 377.

162. NERC is the coordinating agency for ten regional electric reliability councils that cover most of the North American continent. Members of those councils include corporate utilities, independent power producers, governmental utilities, and cooperatives. See Michaels, *supra* note 151, at 26 n.38.

163. NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL, RELIABILITY ASSESSMENT 38 (1998).

problems.¹⁶⁴ This lag disproportionately affects those with low income. More than one million households in forty-seven states and Washington, D.C. with incomes under \$46,000 would pay greater than 30% of their income for winter heating if not for federal fuel assistance.¹⁶⁵ Indeed, some would say a certain amount of energy is a basic requirement for survival, and high costs over time could have an appalling effect on consumers. Social costs such as these may also have effects on communities near those of people with low income because when utility services are shut off, many either start fires or use space heaters in their homes for warmth that get out of control or catch fire and may pose dangers to entire neighborhoods.¹⁶⁶ Freezing deaths would also be common.¹⁶⁷ There are effects to overinvestment in another area as well: “Building unnecessary infrastructure can cause significant harms to wetlands and increased emissions without related net price or efficiency gains.”¹⁶⁸

Additionally, vertical integration avoids some other pitfalls of deintegration because of increased efficiency. The first of these is the classic “hold-up” problem. When separate interests control generation and transmission, for example, either side could “hold-up” the other because each side needs the other.¹⁶⁹ When a utility is completely vertically integrated, there is no division and no one can be “held-up.”¹⁷⁰ Vertical integration also allows for more coordinated investments in a complex system.¹⁷¹ Because any new facility in a grid affects the economic value of all other facilities on the system, an organization owning most of the facilities would be most likely to understand their interactions and invest optimally in them.¹⁷² Another advantage is the reduction of risk.¹⁷³ This reduction would be due to a lower probability of a blackout because a large system will need more coordination and would also lower cost of capital in a very capital-intensive industry.¹⁷⁴

These reasons, primarily increased efficiency, more coordinated investment in infrastructure, short-term social costs, and adequate protections already in place, are why a return to the vertical integration model for electric generation and transmission is warranted.

164. Fershee, *supra* note 8, at 350.

165. Roger D. Colton, *Energy and Low-Income Housing: Part I Energy Policy Hurts the Poor*, NAT'L HOUS. INST., <http://www.nhi.org/online/issues/76/energy1.html> (last visited October 14, 2012).

166. Andrea Peters, *The deadly consequences of utility shutoffs*, WORLD SOCIALIST WEB SITE, (March 16, 2010), <http://www.wsws.org/articles/2010/mar2010/util-m16.shtml>.

167. *Id.*

168. Fershee, *supra* note 8, at 352.

169. Michaels, *supra* note 151, at 4.

170. *Id.*

171. *Id.*

172. *Id.*

173. *Id.*

174. *Id.*

D. Other Proposals

It is fairly clear that many of FERC's reforms to spur investment into energy infrastructure of the type needed by the United States have not fared well. The following are reforms, other than returning to a vertical integration model, as advocated for in Part III.C, which would restore efficiency, encourage investment in infrastructure, encourage investment in renewable and clean energy sources like natural gas, and attempt to lower consumer costs in energy markets:

- Provide federal government funding, where necessary, to states to reacquire assets divested during deregulation.
- Restore provisions of the Public Utility Holding Company Act, repealed in 2005, to restore utility-only ownership of power generating holdings.
- Encourage those utilities transferred to affiliates to return to the original, regulated utility.
- Government investment, and encouraged private investment, in vertically integrated, but decentralized power sources such as wind and solar, particularly in rural areas such as the Great Plains region and the Western United States. This investment could be encouraged with many financial mechanisms, both internal and external, and emissions trading. Also, federal and state governments could simply invest in these sources of energy and either run them as vertically integrated utilities or sell them off as such.
- Similar activities in more urban areas, but encourage more so the development of natural gas technologies.
- Investment in self-healing and "smart" grids, which can better handle outages as well as hackers and potential cyberattacks.
- Continue FERC efforts to dynamically price consumer behavior through demand-side measures.
- Expand FERC's jurisdiction so it can more directly and adequately achieve its objectives and address national issues.

IV. CONCLUSION

The MBR policy promoted by FERC is insufficient to promote the extensive investment needed to bring America's energy infrastructure to the quality needed. Instead, the vertical integration model for producing and delivering energy should be reconsidered and implemented. FERC and Congress should also strongly consider government investment in this area, as well as reforms to spur private investment through something other than

pricing mechanisms, which have been unsuccessful at delivering results for some time. To do so, Congress should also look to expanding FERC's jurisdiction so these objectives could be more easily and directly achieved. These reforms and government actions should help the United States in getting the energy infrastructure it so desperately needs, while looking into reforms that would aid consumers use energy more efficiently, lowering prices for everyone.

