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Inverting Choice of Law in the Wired Universe: Thermodynamics, Mass, and Energy

Steven Ferrey
sferrey@suffolk.edu

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INVERTING CHOICE OF LAW IN THE WIRED UNIVERSE: THERMODYNAMICS, MASS, AND ENERGY

STEVEN FERREY*

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* Professor, Suffolk University Law School. B.A. 1972, Pomona College; J.D. 1975, M.A. 1977, University of California, Berkeley.

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INTRODUCTION

In 2001, the legally regulated world changed: The most essential and capital-intensive industry in the United States, in the largest state in the Union, which itself is one of the six largest energy economies in the world,¹ collapsed. The implosion of California's electric power restructuring, massive bankruptcies of some of the world's largest companies, and the demise of Enron and several other major providers of essential electricity, are of global dimension.² How we produce, distribute, and consume electric power has profound implications not only for social welfare, but also for the environment.³

The problems in California unleashed a flood of litigation and administrative proceedings of every conceivable claim and action, involving every party involved in any aspect of the electric market as the California system struggled to equilibrate. Part II of this Article deconstructs and analyzes how legal institutions and decision rules behaved during, and responded to, this regulatory crisis.

Below the radar screen is a fundamental issue profoundly shaping the litigation outcome:⁴ With electric sector deregulation

1. See California Energy Commission, at <http://www.energy.ca.gov/welcome.html> (last modified Nov. 17, 2003). From 1999 to 2000, its expenditures on electricity quadrupled from approximately \$7 billion in 1999 to approximately \$28 billion in 2000.

2. See Ahmad Faruqui et al., *Analyzing California's Power Crisis*, 22 ENERGY J. 29 (2001).

3. It is estimated that electric power plants are responsible for:

- 66% of SO₂ emissions
- 29% of NO_x emissions
- 35% of CO₂ emissions
- 21% of mercury emissions

Clean Air Network, *Poison Power: How America's Outdated Electric Plants Harm Our Health and Environment* (Sept. 1997). Statistics from the U.S. Department of Energy, Energy Information Administration, have these values for SO₂ and NO_x even higher on a percentage basis. See ENERGY INFO. ADMIN., U.S. DEPT OF ENERGY, ANNUAL ENERGY REVIEW 2002, ch. 12, available at <http://www.eia.doe.gov/emew/aer/pdf/pages/sec12.pdf> (providing tables of estimated emissions measured by million metric tons of gas).

4. For two treatments of deregulation to date, see STEVEN FERREY, 1 THE LAW OF INDEPENDENT POWER ch. 10 (21st ed. 2004) [hereinafter FERREY, INDEPENDENT POWER]; STEVEN FERREY, THE NEW RULES: A GUIDE TO ELECTRIC MARKET REGULATION ch. 13 (2000) [hereinafter FERREY, THE NEW RULES].

now a reality in twenty states, is electricity a “good,” or a service? “Goods” are governed by the Uniform Commercial Code (U.C.C.), while services are governed by distinct common law precedent. Each jurisprudence imposes significantly different decision rules that alter the outcomes of legal disputes and the allocation of societal rights and obligations regarding electricity.

Part II of this Article evaluates and compares the differences between these decision rules as they affect electricity transactions. With a fundamental shift across the country from government-regulated, electric power monopolies to restructured, competitive markets, whether electricity is a good or service will determine both the legal rules by which the markets must operate and the outcome of the plethora of pending disputes. The multibillion dollar stakes of this choice of law are high.

Doctrine on this choice of law is emerging. Part III analyzes California and other state jurisprudence electing to characterize electricity as either a good or a service, evaluating both the legal bases and policy rationales for the evolving checkerboard—and often internally schizophrenic—choices of law made by the states. In Part IV, this Article dissects the decisions of the Federal Energy Regulatory Commission (FERC) applying the U.C.C. to electricity disputes, and demonstrates that the agency has done so haphazardly and uncritically, with no analysis as to whether electricity actually is a good. Moreover, FERC has even applied the U.C.C. incorrectly to adjudications where electricity transmission *services* rather than “goods” clearly were at issue.

In Part V, I step back to examine the thermodynamic physics of electricity and to determine what electricity truly is. Doctrinally and physically, I compare electricity to other fossil fuels, to phone service, and to cable television transmission, and their respective regulation. From this comparison I draw conclusions about the true physical and derivative legal character of electricity, and how its physical thermodynamics create a legal continental divide in application of the law. I analyze and chart that divide to the legal fictions that are embedded in current case precedent.

As a result of this analysis, I challenge the conventional legal constructions. As the various state common laws of contracts replace traditional regulation for interpretation of electricity

transactions, legal rights and obligations, as well as the ultimate judicial outcome of major disputes, will depend on how individual states regard and treat the ephemeral thing known as electricity. How we adjudicate rights in the inevitable move to a partially deregulated, restructured electric environment is of critical economic, environmental, and strategic importance in the United States. First, I examine the massive collapse of legal and economic foundations of the California electric market and its implications for the energy future of the United States.

I. THE CALIFORNIA PARADIGM: MARKET RESTRUCTURING AND STRUCTURAL COLLAPSE

A. Market Design and Response

In late 2000, California's restructured electric power market imploded.⁵ In 1998, California became the third state in the nation, after Massachusetts and Rhode Island, to restructure its electric sector, allow retail competition, and force or incentivize its investor-owned utilities to sell their generating assets.⁶ When California eventually enacted Assembly Bill 1890 in September 1996, it passed the state's deeply divided legislature by an unusual, unanimous vote.⁷ The retail value of the California electric market was approximately \$20 billion annually, with peak load of 53 GW and consumption of 264,000 GWh.⁸

Assembly Bill 1890 adopted almost verbatim the state Public Utility Commission's restructuring plan.⁹ The legislation was

5. See John L. Jurewitz, *California's Electricity Debacle: A Guided Tour*, ELECTRICITY J., May 2002, at 10 (providing a detailed history of California's recent energy crisis); see also Price C. Watts, *Heresay? The Case Against Deregulation of Electricity Generation*, ELECTRICITY J., May 2001, at 19, 22-23 (arguing against electric deregulation).

6. See Laura Goldberg, *Deregulation Proving a Mixed Bag Elsewhere*, HOUS. CHRON., July 1, 2001, at A1.

7. See Jurewitz, *supra* note 5, at 13.

8. See *The California Energy Crisis: A Brief Summary of Events*, 2 ENV'TL ENERGY TECHS. DIV. NEWS (Lawrence Berkeley Nat'l Lab., Berkeley, Cal.), Summer 2001, at 1, 2, available at http://eetd.lbl.gov/newsletter/eetd_nl.html. Utilities supply approximately one half of this load, with nonutility generators supplying approximately two-thirds of the remainder and importation from out-of-state supplying one-third of the remainder.

9. See Jurewitz, *supra* note 5, at 13 (describing the California Public Utilities

subsequently approved by FERC¹⁰ and capped the retail utility rate for each class of customer at 90% of its current level for a period of approximately six years.¹¹ Because California's concept of deregulation contained a 10% price cut to pacify consumers,¹² consumers were discouraged from shifting to alternative retail suppliers.¹³ Accordingly, a vibrant retail market and significant customer shift to alternative suppliers did not become a reality. Because of the recession in California, demand for electricity between 1991 and 1996 only progressed at a rate of about 1% per year.¹⁴ After deregulation was set in motion, and the economy improved, between 1997 and 2000 the increase in demand for electricity was 3.5-4% per year.¹⁵ Between 1993 and 1999, cumulative electric power demand increased 18%.¹⁶

While retail rates under the restructuring system were frozen, average demand for electricity in California increased almost 13% from June 1999 to June 2000.¹⁷ Because of the 10% price cut, only about 3% of customers, representing about 12% of electricity sales, switched to new suppliers, leaving 88% of electricity sales subject to default service by the regulated electric utilities.¹⁸

Commission's proposed restructuring plan and the passage of Assembly Bill 1890).

10. Two FERC approvals transferred control of the utilities' transmission systems to the California Independent System Operator (ISO), designated transmission infrastructure, and approved the operation of the ISO and the Power Exchange. *See* Pac. Gas & Elec. Co., 81 F.E.R.C. ¶ 61,122 (1997); Pac. Gas & Elec. Co., 80 F.E.R.C. ¶ 61,128 (1997). Supported by California officials and the Public Utilities Commission, independent wholesale generators applied for and were granted market-based rates by FERC, typical of those granted in many other states. Duke Energy Moss Landing LLC, 83 F.E.R.C. ¶ 61,317 (1998); Pac. Gas & Elec. Co., 81 F.E.R.C. ¶ 61,122 (1997).

11. CAL. PUB. UTIL. CODE § 368 (West 2002).

12. *Id.*

13. *See* Christopher Weare, *The California Electricity Crisis: Causes and Policy Options* 12-13 (2003), Public Policy Institute of California, available at http://ppic.org/content/pubs/R_103cwr.pdf (last visited Apr. 15, 2004).

14. *See* Jurewitz, *supra* note 5, at 16.

15. *Id.*

16. *Id.*

17. While average electricity demand increased dramatically, peak demand did not increase substantially. Weare, *supra* note 13, at 17.

18. PAUL L. JOSKOW, CALIFORNIA'S ELECTRICITY CRISIS 25 (Nat'l Bureau of Econ. Research, Working Paper No. 8442, 2001).

These default service obligations were unhedged.¹⁹ Regulatory authorities required the utilities to buy a substantial amount of their power requirements on the spot market (day-to-day) rather than through forward-hedged contracts.²⁰ The utilities asked permission to hedge their short positions in power supply not covered by the approximately 12,000 MW of retained coal, nuclear, and hydroelectric assets they had not yet divested, which retained assets meeting only a minority of daily default service load.²¹ Petitions of Southern California Edison Co. hoping to purchase some of its power in the forward market were denied in July 1999 and again in January and May 2000.²² Consumer representatives feared that this would undermine the health of the Power Exchange.²³ When the California Public Utilities Commission (CPUC) later approved these requests as the crisis loomed, the specific Commission approval of forward contracts was slow.²⁴ Responding to political pressure to keep rates low, CPUC denied utilities' requests to increase the retail cost of default service during 2000.²⁵

The conventional utilities, therefore, continued to supply more than 90% of the power being sold in the state.²⁶ The California system worked well enough from its beginning in April 1998 through approximately May 2000. At that point, wholesale prices jumped dramatically.²⁷

19. Jurewitz, *supra* note 5, at 15.

20. *See* Jurewitz, *supra* note 5, at 14.

21. JOSKOW, *supra* note 18, at 25.

22. *See id.* at 15.

23. *See id.*

24. *See id.*

25. *See id.* at 21.

26. Weare, *supra* note 13, at 7 (PG&E, SCE, and SDG&E owned 75% of state power sales while Los Angeles Department of Water and Power and Sacramento Municipal Utility District accounted for 15%).

27. *See* Jurewitz, *supra* note 5, at 21. The California restructuring order is *Re Proposed Policies Governing Restructuring California's Electric Services Industry and Reforming Regulation*, 166 P.U.R.4th 1 (1995), as modified by Dec. No. 96-01-009 (1996). This order created an ISO, which inherited operational control over the transmission systems of the three large investor-owned utilities in California. *See id.* at 1-2. It also created a California Power Exchange, which cleared all buy-sell transactions for wholesale power in the state, attempting to create a transparent spot market administered by the state-chartered Exchange. *See id.* The Power Exchange was independent of the ISO. *See id.*; Weare, *supra* note 13, at 1-2.

Power shortages began in the summer of 2000.²⁸ During the first four months of 2000, prices in the wholesale market on an hourly basis averaged about \$30/MWh.²⁹ In June, July, and August 2000, however, average prices on the spot market quadrupled to about \$125/MWh, and at times exceeded \$200/MWh.³⁰ By the end of 2000, moreover, spot market values had doubled from this new plateau,³¹ creating an increase of approximately 1000%, or ten times the price of what they had been in 1998.³²

What was unusual about these price levels was that they “were not confined to a few peak hours per day, but frequently lasted all day long.”³³ In May 2000, due to hot weather, out-of-service generation, and increasing demand, the ISO declared a Stage II emergency which resulted in power curtailment to certain nonfirm, large, retail customers.³⁴ Still more unusual was the fact that prices continued to climb rapidly through December 2000 and January 2001, which are typically non-peak months for the summer-peaking California system.³⁵

In response to rate payer protest, the state ordered retail rates frozen at 5.5¢/KWh.³⁶ Although many of the investor-owned retail utilities were purchasing power at substantially higher wholesale spot market prices, they were allowed to pass on only a fraction of the acquisition costs in retail rates under this retail rate cap.³⁷ In late 2000, the utilities were selling power for less than 20% what

28. See Jurewitz, *supra* note 5, at 16; Weare, *supra* note 13, at 2.

29. *Id.*

30. *Id.*

31. Lyn Corum, *As California PUC Probes Market, SDG&E Claims It Was Denied Hedging Authority*, POWER MKTS. WK., Aug. 28, 2000, at 1, available at 2000 WL 25140536. Price spikes experienced in deregulated wholesale markets included a price rising up to \$7500/MWh; a price of \$10,000/MWh on February 14-15, 1999, in the New York ancillary services market, which was repeated in December 1998; prices in the New England ISO which rose to \$6000/MWh on May 8, 2000; and Pacific Northwest prices of \$1000/MWh in 2000 and 2001.

32. See *id.*

33. Jurewitz, *supra* note 5, at 16.

34. See Tom Zoellner, *Power Companies in the Hot Seat; Unreasonable Weather Strains System*, S.F. CHRON., May 23, 2000, at A20.

35. JOSKOW, *supra* note 18, at 1.

36. See CAL. PUB. UTIL. CODE § 332.1 (West 2002).

37. See Faruqui et al., *supra* note 2 (describing PG&E and Southern California Edison debt accumulation which could not be passed on to consumers who were still billed at frozen retail rates).

they were paying for it on the wholesale market.³⁸ The revenue-strapped, regulated California distribution utilities were unable to pay on time for their wholesale power acquisitions, because of dwindling cash resources, and teetered on the verge of bankruptcy as a result.³⁹

On January 17, 2001, Governor Gray Davis declared a state of emergency based on an "imminent threat of widespread and prolonged disruption of electrical power."⁴⁰ In early February, the California utilities began defaulting on their payment obligations for wholesale power to the ISO and the Power Exchange,⁴¹ which rose to more than \$12 billion, causing the Power Exchange to discontinue its operations in February and to declare bankruptcy on March 9, 2001.⁴² As a result, the first rolling blackouts in California since World War II occurred on January 17, 2001.⁴³

B. Wholesale Litigation

Amidst this fire storm, litigation rose instantly from the ashes.⁴⁴ California utilities fell more than \$12 billion in arrears on obligations to pay for purchased wholesale power.⁴⁵ The parties owed were principally those who had purchased former regulated, utility-generating plants and had continued to sell power on the wholesale market. Litigation was the front line of the response. There

38. Cf. Paul L. Joskow, *California Can Tame Its Crisis*, N.Y. TIMES, Jan. 13, 2001, at 18 (discussing the disparity between cost and price under the spot market); JOSKOW, *supra* note 18, at 34 (utilities were paying approximately \$400/MWh for power in the wholesale market while reselling it on the retail market for \$65/MWh).

39. See Jurewitz, *supra* note 5, at 20; Joskow, *supra* note 38, at 13; JOSKOW, *supra* note 18, at 34-36.

40. See Governor Gray Davis, Proclamation by the Governor of the State of California (Jan. 17, 2001).

41. See Nancy Vogel & Nancy Rivera Brooks, *Power Sellers Told To Justify Prices or Refund \$69 Million*, L.A. TIMES, Mar. 10, 2001, at A1.

42. See CALPX Files for Bankruptcy, Blames Lawsuits, EEI ENERGY NEWS, Mar. 12, 2001, at 2.

43. See Reme Sanchez & William Booth, *California Orders Rolling Blackouts*, WASH. POST, Jan. 18, 2001, at A1.

44. The following sections are meant to illustrate the possibilities of litigation when a complex deregulated energy system implodes, including pending, as well as possible, claims and litigation.

45. See Vogel & Brooks, *supra* note 41, at A1.

followed numerous claims and suits involving the supply, failure of supply, pricing, reliability, and intermediate transactions (the ISO, the Power Exchange) of wholesale power supply and fuel supply in California. Wholesale power suppliers litigated the slow payment or nonpayment of power previously purchased by utilities.⁴⁶ Based on confidential data, the California ISO filed a report with FERC in March 2001 accusing wholesale power suppliers of overcharging the state by nearly \$6.2 billion, representing 30% of wholesale power costs (the California ISO claimed that power suppliers overcharged by \$500 million during December 2000 and January 2001).⁴⁷ In return for dropping the charges against it, Williams Energy agreed to refund \$8 million to the ISO, corresponding to a shut down of two Williams plants in 2000, causing the company to sell power from more expensive units.⁴⁸

The City Attorney of San Francisco sued Dynegy Power Marketing, Inc., as did Ruth Hendricks on behalf of herself and other similarly situated people in a class action suit;⁴⁹ the Sweetwater Municipal Water District and the Padre Dam Municipal Water District also sued Dynegy (however, this was not a class action),⁵⁰ Pier 23 Restaurant in California, on behalf of itself and others similarly situated, sued Pacific Gas & Electric Energy Trading,⁵¹ and Pamela Gordon brought a class action and private attorney general action versus Reliant Energy, Inc.⁵² These suits contain

46. See *QFs Will Get Paid, but Methodology for Setting Rates Remains in Dispute*, ELECTRIC UTIL. WK., Apr. 2, 2001, at 10, available at 2001 WL 10439940.

47. *CAL-ISO Claims Suppliers Overcharged Over \$6 Billion*, EEI ENERGY NEWS, Mar. 23, 2001, at 2 (CAL-ISO alleging utilities overcharged by \$500 million during December 2000 and January 2001).

48. See Steven Ferrey, *The Eagles of Deregulation: The Role of the Courts in a Restructured Environment*, 32 ENVTL. L. 297, 315 (2002).

49. *Hendricks v. Dynegy Power Mktg., Inc.*, 160 F. Supp. 2d 1155 (S.D. Cal. 2001). Plaintiffs originally had filed cases in California state court, alleging that defendants violated California state law. Defendants had the cases removed to federal court, arguing that the artful pleading doctrine required that the plaintiffs' actions must be cast in federal terms under the Federal Power Act. The federal court held that it lacked jurisdiction, stating that "the court need not recast plaintiffs' state law claims in federal terms, a plaintiff is the master of his or her own claims." *Id.* at 1156-57. The court remanded the cases back to the state courts from which they originated.

50. *California Energy Crisis Lawsuits Continue as More Creditors Sue*, BLOOMBERG NEWS, Mar. 23, 2001, LEXIS, Bloomberg News File.

51. See *id.*

52. *Hendricks*, 160 F. Supp. 2d at 1155.

basic allegations of conspiracy to fix prices and of "gaming" the auction process in California.⁵³ A court rejected a motion by FPL Group, a wholesale supplier, to place a lien on utility company assets to secure amounts owed.⁵⁴

California Attorney General Lockyer offered tens of millions of dollars (as a percentage of any recovery that is made in actions against wholesale suppliers) to "anyone who provides information leading to the successful prosecution of a false claims action."⁵⁵ The Attorney General convened a grand jury investigation.⁵⁶ He then sued Mirant and Reliant in state court for more than \$1 billion for "controlling" California electricity supplies and exercising market power.⁵⁷ His allegations were presented before FERC and in court,

53. The legal authority for plaintiffs' claims are California's Cartwright Act, CAL. BUS. & PROF. CODE §§ 16,720-16,728 (West 1997) and California's Unfair Business Practices Act, CAL. BUS. & PROF. CODE §§ 17,200-17,209 (West 1997). The former provides treble damages relief similar to the Sherman Act, 15 U.S.C. §§ 1-37a (2000). Single damages are measured by what the prices would have been without a conspiracy. Joint and several liability is provided for all damages. Indirect purchasers (consumers of power) are granted standing to sue. The latter statute outlaws "unlawful" business conduct, which is defined as conduct that violates some statute other than the Unfair Business Practices Act. Misleading conduct, which is not fraudulent, might be sufficient without regard to whether a consumer actually detrimentally relied. "Unfair" business conduct has been described as anything constituting "immoral, unethical, oppressive, unscrupulous or substantially injurious to consumers." *Cnty. Assisting Recovery, Inc. v. Aegis Sec. Ins. Co.*, 112 Cal. Rptr. 2d 304, 310 (Ct. App. 2001) (quoting *People v. Casa Blanca Convalescent Homes, Inc.*, 206 Cal. Rptr. 164, 177 (Ct. App. 1984), *disapproved on other grounds in Cel-Tech Communications, Inc. v. L.A. Cellular Tel. Co.*, 973 P.2d 527, 544 n.12 (Cal. 1999)). These lawsuits allege anticompetitive bidding techniques. The claims for relief are equitable in nature, seeking the disgorgement of profit, restitution, and civil penalty.

54. *See QFs Will Get Paid, but Methodology for Setting Rates Remains in Dispute*, ELECTRIC UTIL. WK., Apr. 2, 2001, available at 2001 WL 10439940.

55. Julie Tamaki, *Punishing Producers Could Add to Problem*, L.A. TIMES, Apr. 17, 2001, at A17. The statute in California would allow an informant, likely from inside one of the wholesale suppliers, to collect in Lockyer's estimation into the "hundreds of millions of dollars" if that information led to a successful recovery of monies from a supplier. However, the attorney general's investigation by mid-2001 had concluded that no criminal activity had occurred, and no prosecutions followed.

56. *California Sets Criminal Probe of Power Prices*, FACTIVA ENERGY DIG., June 14, 2001, available at 2001 WL 4219920.

57. *See Nancy Vogel, State Sues 2 Power Firms*, L.A. TIMES, Apr. 16, 2002, at B3. The stated aim of the suit was to force these owners to divest some of the power plants that the state had approved them purchasing from the regulated utilities just a few years before. *See id.* This was later expanded to include Williams, Powerex, and Coral Power, alleging engagement in illegally priced sales from 2000 to 2001. *See Calif. AG Presses New Lawsuits*, PLATTS ELECTRIC UTIL. WK., Apr. 15, 2002, at 4.

calling the companies "power pirates."⁵⁸ FERC dismissed Mr. Lockyer's complaint that power marketers operating under market-based rates had violated the "filed rate doctrine."⁵⁹

California contested wholesale pricing and price cap issues at FERC, involving all of the competitive wholesale suppliers as respondents. Governor Davis stated: "We are going to Washington with one goal, and that is to bring back \$9 billion. The fact is that people have taken advantage of the market, the system, and ripped people off."⁶⁰ FERC eventually imposed a so-called "soft cap" on wholesale prices, and then extended it to the western system in June 2001.⁶¹

In March 2001, FERC ordered thirteen wholesale electric suppliers to justify that the rates they charged in the unregulated California market were "just and reasonable."⁶² FERC focused on January price sales by Dynegy Power Marketing, Duke Energy Trading & Marketing, Reliant Energy Services, Williams Energy Services, and Enron's Portland General Electric Company.⁶³ In March 2001, FERC ordered refunds of wholesale prices charged by wholesalers during California Stage Three Power Emergencies, amounting to 1-2% of wholesale power costs.⁶⁴ The utilities coun-

58. Vogel, *supra* note 57.

59. F.E.R.C. Docket No. EL02-71; *FERC Rejects Lockyer's Complaint that Suppliers Violated Power Act*, PLATTS ELECTRIC UTIL. WK., June 3, 2002, at 9. This was really a collateral attack on the very efficacy of market-based rate authority of FERC, as opposed to traditional cost-based rates.

60. Lynda Gledhill & Christian Berthelson, *The Energy Crunch*, S.F. CHRON., June 15, 2001, at A1.

61. *The California Crisis: Western Regulators Gripe that FERC's Price Cap Is Biased Toward California*, ELEC. UTIL. WK., Aug. 27, 2001, available at 2001 WL 10440679.

62. *PG&E and SoCal Edison Ask FERC To Suspend Williams Energy Marketing's Market Based Rate Authority; California ISO Says Williams Obtained Excess Profits of \$114 Million in Past Four Months*, FOSTER ELECTRIC REP., Apr. 18, 2001, available at 2001 WL 10251617. The average California electricity bill increased by 36%, according to J.D. Power and Associates. *Study: Most Californians Conserve Power*, ENERGY REP., July 23, 2001, available at 2001 WL 8475156. The Federal Reserve Bank of San Francisco calculated that the power costs for the typical California household would increase by \$750 annually, plus an additional \$200/year for natural gas, for a total 38% increase in energy costs. Jennifer Warren, *Utility Bills Are Just One Way People Pay for Energy Crisis*, L.A. TIMES, May 7, 2001, at A1.

63. *San Diego Gas & Elec. Co. v. Sellers of Energy & Ancillary Serv. into Mkts. Operated by the Cal. Indep. Sys. Operator & the Cal. Power Exch.*, F.E.R.C. Docket No. EL 00-95-017 (March 9, 2001).

64. Nancy Vogel & Nancy Rivera Brooks, *U.S. Power Order Won't Help State Prices Critics Say*, L.A. TIMES, Apr. 27, 2001, at A1.

tered that FERC was engaged in secret ratemaking. Dissatisfied with FERC's progress, Governor Davis charged that FERC had shown "little, if any, interest in consumers" and vowed court appeal.⁶⁵

In January 2002, Pacific Gas & Electric filed a \$4.1 billion suit with the California Victim Compensation and Government Claims Board against the State of California for damages resulting from the state's alleged breach of contract under the 1996 electric industry restructuring law. The company alleged that it was not allowed to reflect certain amounts in its stranded cost recovery under Assembly Bill 1890, the state restructuring law.⁶⁶

Power marketers and brokers were involved in claims regarding their failure to supply contracted power to clients. With the collapse of Enron in late 2001, 230 MW of long-term power contracts at favorable prices were lost by the California university system.⁶⁷ The University of California and the California State University initiated a suit, which was subsequently dismissed, involving contract claims against Enron, a private wholesale energy supplier, which withdrew from supplying retail power in California.⁶⁸

C. New Rules: Legislative Recourse

1. No Exit

On January 17, 2001, Governor Davis proclaimed a state of emergency and authorized the California Department of Water Resources (DWR) to supply power on behalf of beleaguered utilities.⁶⁹ On February 1, 2001, this was embodied in emergency legislation which authorized DWR to execute long-term wholesale

65. *California Deserves Only \$1 Billion Says Judge*, SILICON VALLEY/SAN JOSE BUS. J., July 9, 2001, available at <http://sanjose.bizjournals.com/sanjose/>. FERC precedent prevents retroactive refunds even if evidence of overcharge is present.

66. For a discussion of stranded costs, see FERREY, *INDEPENDENT POWER*, *supra* note 4, §§ 10:42-10:49.

67. Will Shuck, *Big Power Users May Feel Big Effects from Enron's Demise*, STOCKTON RECORD, Dec. 5, 2001; *California Universities Have Enron Collapse Exposure*, EEI ENERGY NEWS, Dec. 6, 2001, at 3.

68. *California Universities Sue Enron*, ENERGY REP., Apr. 2, 2001, available at 2001 WL 8474716.

69. See *supra* note 40.

power purchase contracts financed by state-bonding authority, and to resell that power to utilities or retail customers.⁷⁰

Governor Davis signed Assembly Bill 1X, which authorized DWR to issue up to \$10 billion in bonds to finance the long-term power contracts.⁷¹ The California legislation empowered DWR to pay for the difference between the price of agency acquisition of electricity and the retail price for which it was eventually resold by the utilities.⁷² In essence, the state was itself doing precisely what it refused to allow the utilities to do—purchase long-term power contracts. However, the state was doing so without experience in such activity and at a time of crisis, instead of with the calmer foresight it could have exercised six months earlier.

In a matter of a few months, the restructured California environment created a \$14 billion loss for the state purchasing power on behalf of its essentially insolvent investor-owned utilities.⁷³ From mid-January through September 2001, DWR spent \$10.7 billion to purchase power on the spot market to supply customers' needs.⁷⁴ The cost of the California bail-out, while publicly projected by Governor Davis to cost only \$10 billion, was admitted by several of his cabinet members to be expected to cost up to \$23 billion in the first two years alone. This would wipe out the entire state tax surplus.

2. *The Bankruptcies*

The enactment of emergency legislation did not end the problems. By early 2001, both Southern California Edison Co. (SCE) and Pacific Gas & Electric Co. (PG&E) were effectively insolvent.

PG&E, the nation's largest utility, filed for Chapter 11 bankruptcy protection in April 2001, voicing a lack of faith in California's legislative and executive response.⁷⁵ The utility had incurred

70. CAL. PUB. UTIL. CODE § 360.5 (West 2003).

71. Jurewitz, *supra* note 5, at 24.

72. *Id.*

73. See, e.g., Virginia Ellis & Nancy Vogel, *8 State Power Contracts Seen as Bad Deals*, L.A. TIMES, Sept. 30, 2001, at B1. This loss will have to be subsidized and recouped over the next decade by California taxpayers and ratepayers.

74. Jurewitz, *supra* note 5, at 24.

75. PG&E Files for Bankruptcy: "Regulators and Political Process Have Failed Us", ELECTRIC UTIL. WK., Apr. 9, 2001, at 1-2; Jurewitz, *supra* note 5, at 25.

approximately \$9 billion in purchased-power costs since June 2000, with no prospect of recovering these costs in the near future.⁷⁶ The PG&E bankruptcy under Chapter 11 was meant to stem ongoing losses exceeding \$300 million per month.⁷⁷

PG&E was not alone—the bankruptcies were broader. They also impacted quasi-public entities. At the end of 2000, FERC terminated formerly approved tariffs of the California Power Exchange,

76. *PG&E Files for Bankruptcy: "Regulators and Political Process Have Failed Us,"* *supra* note 75, at 1-2.

77. All creditors are required to suspend collection efforts as soon as the petition is filed; any further collection efforts may result in forfeiture of creditor's rights and loss of the amount owed. This requirement allows for the debtor-in-possession to operate the business without the constant harassment of creditors seeking payment. ROBERT L. JORDAN & WILLIAM D. WARREN, *BANKRUPTCY* 753-55 (1985). Different committees will be created that consist of representatives of the different types of creditors. A cap is placed on the committee size at the seven largest for that respective class of creditors. Since different creditors have different interests, generally there will be at least one representative from each class and the representative will push for the most favorable recovery for that specific class. The PG&E Bankruptcy involves thirteen classes of creditors and within those classes are an additional thirteen subclasses of creditors. The Bankruptcy DataSource, Pacific Gas & Electric, Oct. 22, 2001. If PG&E is taking a course of action that creditors believe is an imprudent application of the company funds, the creditors may file an objection to such activity in the Ninth Circuit Court of Appeals seeking an injunction preventing the company from undertaking the activity. The actions by a debtor-in-possession are governed by the business judgment rule. *See In re Simasko Prod. Co.*, 47 B.R. 444 (D. Colo. 1985) (holding that the debtor in possession will be granted the authority to operate according to the business judgment rule and the court will not disturb the debtor's operations absent a showing of abuse by corporate officials). For a claim to be allowed, a creditor who is unsecured must file a proof of claim by a bar date set by the bankruptcy judge. *See* FED. R. BANKR. P. 3003(c)(3) (West 2002) (stating that only after a motion, hearing, and allowance by the judge will a claim be allowed when filed after the bar date). Special consideration is given to governmental unit claims. A claim filed by a governmental unit must be filed within 180 days following the order for relief, an order granted to the debtor immediately upon the filing of the petition for bankruptcy protection. If a claim is secured, the secured creditor does not need to file a proof of claim but it may. FED. R. BANKR. P. 3003(c)(1) (West 2002). Under § 506 of the Bankruptcy Code, a claim is secured if it has been allowed and is secured by a lien or subject to a set-off. 11 U.S.C. § 506(a) (2000). A claim is secured only to the value of the collateral it is secured by, or up to the amount that is subject to the set-off. *Id.* Different claims are afforded different levels of priority under a plan of repayment or a plan of reorganization. *Id.* § 507. The first priority is usually given to the administrative expenses of the bankrupt estate. *Id.* § 507(a)(1). A judge has the authority to grant a creditor superior priority in circumstances when obtaining credit is vital to the success of the reorganization and obtaining that credit may be realized only through the extension of a super priority status to the creditor. These debts include the lawyers', trustees', and hired professionals' compensation. Third priority in a Chapter 11 case is the payment of up to \$4000 in wages and commissions earned by an individual within ninety days of the petition. *Id.* § 507(a)(3)(B). Existing employee benefit plans get paid next, followed by consumer claims and taxes. *Id.* § 507(a)(4)-(8).

and by January 2001, the Power Exchange was bankrupt.⁷⁸ The California ISO subsequently filed for bankruptcy protection.

In February 2001, Governor Gray Davis used his emergency power to seize forward power contracts of two of the large utilities (PG&E and SCE) that were held by the California Power Exchange, thus preventing the California Power Exchange from liquidating them to repay power generators after PG&E and SCE defaulted.⁷⁹ The value of the contracts was worth \$150 million,⁸⁰ a price that Governor Davis subsequently disputed.

D. The "Solution" that Deepened the Hole

The panicked California response in early 2001 was to execute nearly \$43 billion in long-term power contracts with wholesale suppliers on behalf of insolvent utilities to secure a long-term power supply for a significant share of California's future requirements.⁸¹ The long-term (ten-year) average price for future whole-

78. Jurewitz, *supra* note 5, at 23. The California Power Exchange blamed several lawsuits by power generators for the necessity to seek bankruptcy protection. The Power Exchange retained approximately \$1 billion of its participants' money after SCE and PG&E defaulted on some \$3 billion they owed for power purchases.

79. Jennifer Coleman, *The Energy Crunch: Power Contracts Seized To Keep Creditors at Bay*, THE COLUMBIAN, Feb. 6, 2001, at C2; *see also 9th Circuit Rules Against Contract Seizure*, ELECTRIC DAILY, Sept. 24, 2001, at 1.

80. *Id.* Davis' goal in seizing the contracts was to remove the contracts from liquidation to partially fund the bankruptcy estate for the California Power Exchange. Duke Energy had a 43% secured interest in the contracts. When PG&E and SCE defaulted on those contracts Duke Energy should have been entitled to a proportional payment from the bankrupt's estate, pending liquidation by the California Power Exchange's Trustee. Molly McDonough, *Gov. Davis Loses Duke Energy Case*, NAT'L L.J., Oct. 8, 2001, at A18. Threats had been made by Davis when he addressed the California Legislature in early January: "There is no easy solution. But, if I have to use the power of eminent domain to prevent generators from driving consumers into the dark and utilities into bankruptcy, then that's what I'll do." *California Governor To Meet with U.S. Energy Officials about Power Crisis* (Jan. 9, 2001), at <http://www.cnn.com/2001/US/01/09/power.woes/>.

The Ninth Circuit Court of Appeals, by a split decision, overturned this action as the state intruding on federal (FERC) powers under the Federal Power Act, confiscating collateral, and thus violating the Supremacy Clause. In dissent, Judge Kozinski argued that a clear emergency affecting the health, safety and comfort of the people justified the Governor's action which the court should not second-guess.

81. John Howard, *Deal Reworking Calpine Pact Is Near*, ORANGE COUNTY REG., Apr. 6, 2002, available at 2002 WL 5445386; Jurewitz, *supra* note 5, at 24; *Davis Finally Makes Contract Deals Public*, EEI ENERGY NEWS, June 18, 2001, at 2.

sale power paid by California under these contracts was about 7.9¢/KWh.⁸² This, however, proved inopportune.

California pressured wholesale suppliers to enter these contracts at the worst possible time. The futures market in November 2000 was about \$150/MWh;⁸³ when California was negotiating these contracts, the August 2001 futures price had increased to \$350-\$550/MWh,⁸⁴ and even rose as high as \$750/MWh when California was finalizing these deals in April 2001.⁸⁵ By July 2001, after California concluded executing these contracts, the August 2001 future had receded to below \$100/MWh.⁸⁶ California lost millions selling excess power that it had purchased during 2001.⁸⁷ In July 2001, the state lost \$46 million after selling surplus power for approximately 20% of the price it had paid for it.⁸⁸

Further, in Spring 2002, it was revealed that Enron, Reliant,⁸⁹ Dynegy,⁹⁰ and CMS⁹¹ engaged in false or manipulative wholesale, power-trading activities in the California market.⁹² As a result, the Commodity Futures Trading Commission launched a "very broad" investigation of various energy trading schemes.⁹³ This also caused

82. *Id.* The contracts contained prices for power ranging between 2.5-25¢/KWh. *FERC Takes on Calif. Contract Conflicts*, ELECTRIC UTIL. WK., Apr. 29, 2002, at 13.

83. Jurewitz, *supra* note 5, at 25.

84. *Id.*

85. *Id.*

86. *Id.*

87. Paul Feist, *State Loses \$25 Million in Power Plays, Ploys*, S.F. CHRON., Oct. 25, 2001, at A19.

88. *Id.* It sold power to the Los Angeles Department of Water & Power for 0.5¢/KWh and then essentially gave it away to Canada on another occasion in late May.

89. *Reliant, CMS Trading Chiefs Resign as Companies Deal with "Wash Trades,"* ELECTRIC UTIL. WK., May 20, 2002, at 1, available at 2002 WL 10510261; *CFTC Seeks Aid in Its Trading Probe: Feinstein Bill to See Action by Aug.*, ELECTRIC UTIL. WK., May 27, 2002, at 3.

90. *Dynegy Board Ousts Founder Chuck Watson*, ELECTRICITY DAILY, May 29, 2002, LEXIS, Electricity Daily File.

91. *See CMS Chief, Quits Amid Trading Inquiry*, L.A. TIMES, May 25, 2002, at C2; *Reliant, CMS Trading Chiefs Resign as Companies Deal with "Wash Trades,"* *supra* note 89.

92. *FERC Expands Western Probe, Seeks Reports on Extent of "Wash" Trading*, ELECTRIC UTIL. WK., May 27, 2002, at 3-4.

93. *In "Very Broad" Probe, CFTC Looking into Energy Trading "Wrongdoing,"* ELECTRIC UTIL. WK., May 20, 2002, at 2, available at 2002 WL 10501262; *CFTC Seeks Aid in Its Trading Probe: Feinstein Bill to See Action by Aug.*, ELECTRIC UTIL. WK., May 27, 2002, at 3.

the California Attorney General to increase the pressure on FERC to order refunds to California.⁹⁴

The U.S. Congress General Accounting Office released a report in July 2002 concluding that during the California power crisis of 2001-2002, certain suppliers "exercised market power by raising prices above competitive levels during some periods after the restructured market opened."⁹⁵ For example, Enron engaged in practices⁹⁶ that essentially created phantom congestion on the California grid or along certain paths of the grid and then was paid for relieving some of the value of the phantom congestion they had created.⁹⁷

Litigation intensified. The U.S. Justice Foundation filed suit in the California Superior Court for Sacramento County to declare void \$43 billion in long-term power contracts negotiated by the state.⁹⁸ The suit alleged that the contracts locked the market into a few generators and violated antitrust laws.⁹⁹ The California Department of Water and Power sued to void its contract with Sempra Energy Resources for alleged failure to hit required milestones.¹⁰⁰ In May 2002, two private law firms filed suit in the

94. See *California AG Says New Enron Memos Should Force FERC To Order Refunds*, ELECTRIC UTIL. WK., May 20, 2002, at 8, available at 2002 WL 10510268. California State Senator Steve Peace accused FERC: "[Y]our investigation simply did not examine in any depth the behavior of suppliers. Worse, the investigation was simply halted after the report was prepared." *Calif.'s Peace Faults FERC Market Monitoring in Light of Enron Memos*, ELECTRIC UTILITY WK., May 20, 2002, at 8, available at 2002 WL 10510269. United States Senator Byron Dorgan (D.-N.D.), Chairman of the Senate Commerce Subcommittee on Consumer Affairs, criticized FERC for its "impression of a potted plant" in response to the California energy crisis. *Newly Armed, Calif. Attacks Enron, FERC*, ELECTRIC UTIL. WK., May 20, 2002, at 1, available at 2002 WL 10501260.

95. U.S. GENERAL ACCOUNTING OFFICE, GAO-02-828 RESTRUCTURED ELECTRICITY MARKETS: CALIFORNIA MARKET DESIGN ENABLED EXERCISE OF MARKET POWER 11 (2002), available at <http://www.gao.gov>.

96. Internal Enron memoranda dubbed these practices "export of California power," "inc-ing load," "Fat Boy," "Death Star," "Load Shift," "Scheduling Energy To Collect Congestion Charge II," "Non-Firm Export," "Wheel Out," and "Get Shorty." See "Fat Boy," "Get Shorty" and "Inc-ing: A Look at Enron Trading Practices", ELECTRIC UTIL. WK., May 13, 2002, at 7, available at 2002 WL 10510230 (describing each of these practices).

97. See *id.*

98. See Michael B. Marois, *California Faces Suit on Long-Term Power Contracts*, BLOOMBERG NEWS, Nov. 8, 2001, LEXIS, Bloomberg News File.

99. See *id.*

100. *Sempra, Calif. DWR Contract Dispute Continues*, ELECTRICITY DAILY, May 31, 2002, LEXIS, Electricity Daily File; *Sempra Fights DWR Claims That It Defaulted on Wholesale*

California Superior Court in San Francisco on behalf of all state taxpayers seeking \$9.1 billion in damages from wholesale power suppliers who were alleged to have manipulated the market.¹⁰¹

In response to this litigation, Governor Davis demanded suppliers renegotiate the deals he had just made with them a few months before. Many of California's long-term energy contracts, however, contain clauses prohibiting the state from seeking any federal review of the prices negotiated.¹⁰² The state refused to honor those clauses it had just negotiated.¹⁰³ Jan Smutny-Jones, a spokesperson for the Independent Energy Producers, some of whom executed those contracts, said, "The state goes out looking for contracts, sets the parameters of the contracts, and then tries to renege on them.... This kind of thing happens in the Third World, but companies have insurance for doing business there."¹⁰⁴

Despite the contractual prohibition, in February 2002 the PUC filed petitions with FERC to void thirty-two of the long-term power contracts with twenty-two individual suppliers that the state negotiated in 2001, alleging that the contracts were negotiated in an anticompetitive environment and "exceed[ed] just and reasonable prices by approximately \$14 billion."¹⁰⁵ At that time, the \$43 billion in contracts had a market value of approximately half the price at which they were negotiated.¹⁰⁶

Contract, ELECTRIC UTIL. WK., June 3, 2002, at 11.

101. See Jessica Berthold, *Calif. Law Firm Sues Pwr Suppliers for Mkt Manipulation*, DOW JONES ENERGY SERVICE, May 13, 2002, WL 5/13/02 DJES 17:41:00. Defendants named in the suit were Allegheny Energy, Dynegy, El Paso, Mirant, Morgan Stanley Capital Group, PacifiCorp Power Marketing, Semptra, Williams, PG&E Corp., Edison International, Coral Power, United Technologies, Calpeak Power, and Alliance Colton. *Id.*; *Suit Filed to Protest Power Supply Manipulation*, EEI ENERGY NEWS, May 14, 2002.

102. See Virginia Ellis & Nancy Vogel, *Energy Pacts Bar State from Seeking U.S. Review of Prices*, L.A. TIMES, Oct. 15, 2001, at B5. Regarding the failure to provide the ability for the state to exit these deals, California Energy Committee Chair, Debra Bowen stated: "You would never find a provision like that in a contract that was negotiated under normal circumstances, because it's patently ridiculous." *Id.*; *California Contracts Bar Request of FERC Price Review*, EEI ENERGY NEWS, Oct. 15, 2001, at 2.

103. See Mark Martin, *Move To Void Power Pacts Could Backfire*, S.F. CHRON., Feb. 26, 2002, at A3, available at 2002 WL 4013909.

104. *Id.*

105. See *Wholesale Suppliers Plead with FERC To Uphold Calif. Long-Term Contracts*, ELECTRIC UTIL. WK., Apr. 1, 2002, at 1, available at 2002 WL 10510008.

106. See James Sterngold, *California Tries To Have Energy Deals Renegotiated*, N.Y. TIMES, Feb. 25, 2002, at A17; cf. Tim Reiterman, *State Disputes Long-Term Power Pacts*, L.A. TIMES, Feb. 25, 2002, at B1 (noting that under these contracts suppliers can charge up to

FERC rejected other efforts by the PUC to overturn certain long-term purchase power contracts signed by the state.¹⁰⁷ A FERC administrative law judge upheld four long-term power sale contracts signed by the state during the crisis.¹⁰⁸ Another FERC administrative law judge refused to reject Pacific Northwest contracts executed during the crisis, as there was no fraud or mutual mistake.¹⁰⁹ A FERC administrative law judge in December 2002, however, ruled that electricity suppliers had overcharged the since-defunct California Power Exchange and the California ISO by \$1.8 billion.¹¹⁰ In March 2003, a FERC staff report revised the amount of overcharge that FERC might order restituted to \$3.3 billion.¹¹¹

Calpine, Constellation Energy, and three other companies agreed to trim the length of eight of their contracts in return for California

almost twenty-five percent above benchmark prices for peak energy periods).

107. *See, e.g.,* CalPeak Power-Panoche LLC, 98 F.E.R.C. ¶ 61,024 (2002). The PUC had tried to turn over the contracts that California had signed alleging that the small generators exercised market power when the California Department of Water Resources executed contracts with them in early 2001. *See id.* The California PUC argued that because the California market was dysfunctional, even small generators exercised market power and, therefore, FERC should nullify the contracts, even though the state was not acting under duress. *See id.* Calpeak entered a ten-year, 350 MW contract in August 2001 with the state. It provided peaking power for approximately 110/MWh for up to 3000 hours of annual dispatch over the contract period. This was the third time that FERC had rejected California challenges to long-term contracts it had signed a few months before.

108. *See* Dean Calbreath, *California Long-Term Power Purchases Upheld*, COPLEYPRESS SERVICE, Dec. 20, 2002, LEXIS, Copley News Service File. The contracts involved Nevada Power, Sierra Pacific Power, Southern California Water Co., and the Public Utility District of Snohomish County, Washington. *See id.*

109. *See ALJ Rejects PacifiCorp Contract Dispute*, ELECTRICITY DAILY, Mar. 3, 2003, LEXIS, Electricity Daily File. This decision upholds the *Sierra-Mobile* doctrine to uphold contractual rates as "just and reasonable." *See id.*

110. *See Calif. Owes Suppliers, Rules FERC ALJ*, ELECTRICITY DAILY, Dec. 16, 2002, LEXIS, Electricity Daily File. FERC presiding judge Bruce Birchbaum ruled that the \$1.8 billion in overcharges was offset by approximately \$3 billion still unpaid by the purchasers to the suppliers. *See id.* This decision culminated a process of off-record negotiations, record hearings, and intervention by 100 active parties, amid political pressure. *See id.*; *see also Let Down by FERC ALJ Ruling, Calif. Vows to Push for at Least \$9 Billion*, ELECTRIC UTIL. WK., Dec. 16, 2002, at 1.

111. The FERC report noted the root cause of the crisis was California's fatally flawed market design. The report found an "epidemic" number of efforts to manipulate gas prices. The Los Angeles Department of Water and Power was among those companies cited for market manipulation. Kennedy Maize, *Analysis: FERC is "Arresting a Corpse,"* ELECTRICITY DAILY, Mar. 28, 2003, at 1; Jonathan Peterson & Ricardo Alonso-Zaldivar, *Energy Market Manipulated, Regulators Say*, L.A. TIMES, Mar. 27, 2003, Business Desk, at 1.

releasing them from suit, reducing future California costs by \$3.5 billion.¹¹² Ultimately, Calpine agreed to renegotiate \$11.7 billion of long-term power contracts entered with California.¹¹³ In exchange for cutting the duration of the power sale from twenty years to ten years, "Calpine would be allowed to sell more power to California" in 2002-2004.¹¹⁴ Commentators estimated that this renegotiation would save the state \$2.8 billion on the \$70/KWh contracts.¹¹⁵ The DWR also "restructured its power supply contract with CalPeak Power saving the agency 17% or \$71-million."¹¹⁶

In total, thirty-four contracts were restructured under pressure from California.¹¹⁷ While Governor Davis "boasted that the state saved \$5.5 billion," an independent state auditor concluded that the net savings was only \$1.5 billion, in nominal dollars, or \$0.5 billion in net present value.¹¹⁸ In most cases, the price was not reduced; rather, the contract duration was shortened or the amount of power to be sold was reduced.¹¹⁹

The ultimate *modus operandi* is evident: California's energy crisis and legislative response have and will continue to breed a plethora of contests and litigation of every conceivable type in every possible forum. Court decision rules, therefore, become as important now, or more so, as regulatory commission rules did during former periods of traditional bundled regulation. The key to the substantive outcome is determining which rules apply to electric power contracts.

112. See *DWR Renegotiates Deals with Producers, But Consumer Group Mocks Savings Claim*, ELECTRIC UTIL. WK., Apr. 29, 2002, at 10, available at 2002 WL 10510124. These eight contracts accounted for \$15 billion of the state's \$43 billion obligation. See *id.* These renegotiations, however, did not significantly alter the price for power sale per megawatt-hour. See *id.* Consumer groups criticized the "mere 2%" reduction in price in a Calpine contract. *Id.*

113. See *Calif., Calpine Reach Deal on \$11.7B Power Contract*, ELECTRICITY DAILY, Apr. 9, 2002, LEXIS, Electricity Daily File.

114. *Id.*

115. See *id.*

116. *Settlement Talks for Renegotiating Calif. Contracts Start at FERC May 16*, ELECTRIC UTIL. WK., May 6, 2002, at 7, available at 2002 WL 10510193.

117. *Schwarzenegger Vows to Restructure State Power Contracts*, EEI ENERGY NEWS, Jan. 7, 2004, at 2.

118. *Calif. Claim of Savings from Re-Doing Contracts Are Far Too High: Auditor*, ELECTRIC UTIL. WK., Apr. 7, 2003, at 8, available at 2003 WL 11143705.

119. See *id.*

Although some California courts have held that electricity is a “product” to adjudicate tort actions based on public policy and metering distinctions,¹²⁰ the California courts have yet to address definitively whether electricity is a good or service for contract purposes. This decision must be made, however, especially in a deregulated context amid the rash of recent commercial litigation that has ensued with California’s restructuring debacle.

Courts in each state will make individual decisions as to whether electricity is a good, on the one hand, or a service, on the other hand. However made, these decisions will fundamentally shape the rules of the new market, in which case law will supplant traditional regulation to a significant degree.

II. TREATMENT OF ELECTRICITY UNDER THE COMMON LAW AND THE U.C.C.

As the role of direct regulation is replaced by new, restructured, electric market rules, the judicial branch increasingly will replace much of the prior role of executive branch regulators. The still unresolved question in California and many states is whether electricity legally is a good or a service. The distinction matters in determining disputes regarding whether electricity contracts have been formed, the substance of the contract, the performance obligations, and the resultant legal obligations. Whether electricity is a good governed by the U.C.C., or a service governed by the general common law can alter the outcome of the legal dispute in more than a dozen significant areas of contract law.

The contract precedent that directly governs business relationships in this “new,” deregulated market is a matter of state law and varies from state to state. However, one can make generalizations about how the typical (so-called “majority view”) state common law rule for electric services differs from the U.C.C. rule for goods. The following table delineates several of these key differences, setting traditional common law rules.¹²¹

120. See, e.g., *Stein v. S. Cal. Edison Co.*, 8 Cal. Rptr. 2d 907 (Ct. App. 1992); *Mancuso v. S. Cal. Edison Co.*, 283 Cal. Rptr. 300 (Ct. App. 1991).

121. For a detailed discussion of the distinctions presented in the following table, see Appendix.

| <i>ISSUE</i> | <i>TRADITIONAL COMMON LAW</i> | <i>U.C.C.</i> |
|---|-----------------------------------|---------------|
| 1. Must acceptance of a contract offer exactly or materially "mirror" the terms of the offer? | Yes | No |
| 2. In wholesale electric transactions, can additional terms to the deal be added by the acceptance, even if not contained in the offer? | No | Yes |
| 3. Must enforceable contracts for more than \$500 either be in writing or evidenced by a writing? | No | Yes |
| 4. Can an existing contract be modified without new consideration? | No | Yes |
| 5. Are prior oral statements includable as part of a written contract? | Less likely | Possibly |
| 6. Can a contract be modified orally even where that contract prevents such modifications? | Yes | No |
| 7. Will indefinite gaps in a contract be filled in and the contract enforced? | Often not | Usually |
| 8. Must a demand for assurances of performance be in writing? Is response always required in less than thirty days? | No | Yes |
| 9. Can a firm offer in writing not supported by consideration be revoked? | Yes | No |
| 10. Is substantial performance of obligations, rather than perfect performance, allowed? | Yes | No |

| | | |
|--|-----------|--------|
| 11. Are trade practices and past conduct relevant in interpreting the deal? | Often not | Always |
| 12. Is the market value of an item measured at the time of breach rather than at the time that the party was to perform? | Yes | No |
| 13. Will implied warranties of merchantability and fitness be read into the contract? | No | Yes |
| 14. If the warranty/remedy fails, will courts throw out quality disclaimers? | No | Yes |

The U.C.C. definition states, in part, that “goods” are (1) all things (including specially manufactured goods) that are movable at the time of identification to the contract for sale, and (2) must be both existing and identified before any interest in them can pass.¹²² Since electricity can be conceptualized as a movable “thing,” some have leapt to the conclusion that electricity is a “good.” In governing the sale of goods, the U.C.C. speaks to “identifying” those goods at some point prior to delivery.¹²³

The electrons themselves cannot be identified and delivered in any sense that the U.C.C. contemplates. Electrons move at almost the speed of light, but specific electrons cannot be, and are not, delivered to a destination or buyer. A seller or producer cannot move or send identified electrons to a particular purchaser or user. In this regard, electricity is much like another utility, telecommunications, which also transmits an electric-magnetic energy wave through space in microwave form or along copper cable. Telecommunications and phone transactions in the electro-magnetic spectrum are legally treated as services, rather than goods.¹²⁴ As such, we are faced with a conundrum.

Unlike gas, electricity is an invisible wave or force. It is created by the *movement* (not the consumption) of electrons, rather than

122. U.C.C. § 2-105(2) (1989).

123. *See id.* §§ 2-501, 2-613, 2-709.

124. *See infra* Part VI.C (discussing telecommunications case precedent).

the sale and permanent transference of the electrons themselves. Electricity is not matter, but the energy by-product of the movement of matter. Even if it is matter, however, the movement of matter is analogous to a transportation service. Electric production merely induces the electro-magnetic fast movement of electrons in a copper wire.

Different states have wrestled with defining electricity as a good or service and have come to different conclusions. Some jurisdictions, such as New York, treat electricity strictly as a service.¹²⁵ Other jurisdictions have drawn distinctions between “raw” energy and “metered” energy, treating the former as a service and the latter as a good.¹²⁶ The California jurisprudence illustrates the confusion. Different decisions over time in California hold that:

- Electricity is personal property (1913)¹²⁷
- Electricity is a product (for products liability) and may also be a good (1985)¹²⁸
- Electricity is a service until it is metered (1991)¹²⁹
- Electricity is an intangible or service (2002)¹³⁰

These distinctions are increasingly important in this era of retail electric sector deregulation since individual state common law and court interpretation are replacing systematized regulation by FERC and the states. Rules of this “new market” will be made by contract and interpreted by courts. Because ambiguity exists in the current

125. See *infra* notes 258-62 and accompanying text.

126. See discussion *infra* Part III.B.3.

127. *Hill v. Pac. Gas & Elec. Co.*, 136 P. 492 (Cal. Ct. App. 1913).

128. *Pierce v. Pac. Gas & Elec. Co.*, 166 Cal. App. 3d 68 (1985).

129. *Mancuso v. S. Cal. Edison Co.*, 232 Cal. App. 3d 88 (1991).

130. California State Board of Equalization, Appeal of PacifiCorp, No. 90027, September 12, 2002.

The sales of electricity are sales of services that essentially consisted of appellant's setting and keeping in motion, through its generation and transmission facilities, electrically charged particles. Also as in *Otte*, we further conclude that the basic reason the generation and transmission process employed by appellant is appropriately characterized as a service is that the process does not result in either (1) the “creation” in its generation facilities of any such arguably tangible particles or (2) the “injection” of those particles into its transmission facilities.

Id.

judicial treatment as to whether electricity is a good or a service, the next section considers some of this judicial treatment.

III. STATE PRECEDENT ON THE LEGAL NATURE OF ELECTRICITY

There are distinctively different legal rules applying to power contracts as well as to injuries related to power. Two primary fields of law are relevant to electricity: torts and contracts. Both involve state law determinations.¹³¹

A few states have wrestled with whether electricity is a good or a service. Part II demonstrated that the answer to this question will change the rules that apply in contract disputes. Moreover, as these issues are determined by individual state courts, there could be fifty separate and distinct answers.

Which way a state decides on this issue of good or service, while an issue now that has attracted little attention, may be regarded in retrospect as a key formative force in establishing the new rules of the deregulated marketplace.

A. Electricity Sales

First, contract law, governing electricity sale transactions, applies for resolving contract disputes regarding production, sale, operation and maintenance arrangements, power wheeling, trading of power, etc. In a deregulated power market, individual contracts will need to address a variety of factors: how primary and back-up power resources will be supplied; the allowable loss, disruption, or variation in the quality and quantity of electricity supplied; the remedies and damages for failure to supply; specific force majeure provisions to relieve supply obligations, general allocation of risk among various suppliers, transporters, intermediaries, and users of power; insurance provisions to support power supply obligations; and, agreement on the standard of provision of electric power. Determining whether electricity is a good or a service thus remains critical.

131. States also have construed whether electricity is tangible property that can be taxed by the state.

Contract disputes involving goods are resolved pursuant to the statutory rules of the U.C.C. and its implied warranties of fitness and merchantability for goods.¹³² State U.C.C. statutes generally are, with some variation, uniform from state to state. Contractual disputes involving services are not covered by the statutory provisions of the U.C.C., but rather are ruled by the generic common law in each state. The common law is the amalgam of legal precedent, in the form of court decisions, in each state. The rules under each system, as detailed in more detail in the Appendix, are different.¹³³

1. Electricity as a Good Under the U.C.C.

No reported court decision has defined *all* electricity as a good under the U.C.C. In a 1979 case, the Court of Appeals of Indiana made a distinction between raw and metered electricity.¹³⁴ The court held, as it did in *Helvey*, that metered electricity was a "good," while raw electricity was not a good.¹³⁵ The Court of Appeals of Indiana held that the metered electricity sold in consumer voltage that passed into the homes of consumers is a good covered by the U.C.C., while raw electrical energy encountered in "an unmarketable and unmarketed state" in the overhead transmission cable was not.¹³⁶ The court further reasoned that "[t]he high-voltage electricity with which the Hedges came into contact was not the good that PSI was intending to sell or the Hedges were intending to buy."¹³⁷ Instead, courts tend to draw a distinction between so-called raw

132. See *infra* notes 574-84 and accompanying text.

133. See *infra* Appendix.

134. See *Hedges v. Pub. Serv. Co.*, 396 N.E.2d 933, 936 (Ind. Ct. App. 1979). John Hedges owned a farm in Indiana on which he decided to build a barn. *Id.* at 934. Hedges contacted the Public Service Company of Indiana (PSI) to extend his electrical service to the barn. *Id.* PSI installed the electrical lines to the barn. *Id.* While moving an aluminum ladder, Hedges struck an uninsulated power line and was seriously injured. *Id.* Hedges brought suit for negligence, breach of implied warranties, and strict liability. *Id.* at 935-36. The court further reasoned that "[t]he high-voltage electricity with which the Hedges came into contact was not the good that PSI was intending to sell or the Hedges were intending to buy." *Id.* Thus, "the tragic escape of 7,200 volts from the transmission wire, through the ladder and into the bodies of these men is not a transaction in goods intended to be covered by the U.C.C." *Id.*

135. *Id.* at 935.

136. *Id.*

137. *Id.* at 936.

electricity and metered electricity, similar to the line drawn by some courts in strict products liability actions, discussed later as part of the law governing electricity torts.

Section 105 of Article 2 of the U.C.C. defines "goods" as:

- "all things (including specially manufactured goods) which are movable at the time of identification to the contract for sale"¹³⁸
- "Goods must be both existing and identified before any interest in them can pass."¹³⁹

As early as 1913, a California court held that electricity was personal property, which may be bartered and sold.¹⁴⁰ Many jurisdictions have found that electricity may be stolen and electricity may be taxed.¹⁴¹ Some courts have found that the delivery of electricity is a service, but the actual consumable energy is a good.¹⁴² In *Helvey v. Wabash County REMC*,¹⁴³ the court reasoned:

138. U.C.C. § 2-105(1) (1989).

139. *Id.* § 2-105(2).

140. *Hill v. Pac. Gas & Elec. Co.*, 136 P. 492, 500 (Cal. Ct. App. 1913) (citing *Terrace Water Co. v. San Antonio Light & Power*, 82 P. 562, 563 (Cal. Ct. App. 1905); see also *Sixty-Seven S. Munn, Inc. v. Bd. of Pub. Util. Comm'rs*, 147 A. 735, 736 (N.J. 1929).

141. See, e.g., *Gross Income Tax Div. v. Chicago Dist. Elec. Generating Corp.*, 139 N.E.2d 161, 164-65 (1956) (holding taxation within state lawful while taxation of interstate commerce is unlawful). ALA. CODE § 13A-8-23 (1975); ALASKA STAT. § 11.46.100 (2002); LA. REV. STAT. ANN. § 14:67.6 (1997); R.I. GEN. LAWS § 11-35-7 (1956); TENN. CODE ANN. § 65-35-103 (1993).

142. See, *Ransome v. Wis. Elec. Power Co.*, 275 N.W.2d 641, 643 (Wis. 1979).

143. 278 N.E.2d 608, 610 (Ind. Ct. App. 1972). Mr. Helvey filed the action to recover damages caused to his 110-volt household appliances when an electrical current in excess of 135 volts damaged them. *Id.* at 608. The electricity provider, Wabash County REMC, raised the argument that it provided a good or product that was subject to the four-year statute of limitations in the U.C.C. *Id.* at 609. It was unusual that the electric company took this position because in most cases it argues against the U.C.C.'s applicability. Thomas Helvey filed an action against REMC for breach of implied and express warranties. *Id.* REMC filed a motion for summary judgment based upon the U.C.C. statute of limitations. *Id.* The Indiana Court of Appeals stated that in order for the U.C.C. statute of limitations to apply, electricity must be a "good" as defined in the U.C.C. *Id.* at 609-10. Helvey argued that electricity is a service thereby invoking a six-year common law statute of limitations to his advantage. *Id.* at 610. The court stated that to be a "good," electricity must be a thing, that is both existing and movable simultaneously. *Id.* The electricity can be measured to establish a price thereby fulfilling both the existing and movable requirements of goods. *Id.* The court also stated that one of the underlying principles of the U.C.C. is uniformity among jurisdictions. *Id.* (citing *Gardiner v. Philadelphia Gas Works*, 197 A.2d 612, 614 (Pa. 1964)).

"Logic would indicate that whatever can be measured in order to establish the price to be paid would be indicative of fulfilling both the existing and movable requirements of 'goods.'"¹⁴⁴ The court in *Helvey* held that electricity was a good for purposes of the U.C.C. The court further held that the electricity, having passed through the consumer's meter, was a good and the four-year statute of limitations applied and barred recovery.¹⁴⁵ The court stated, "It is necessary for goods to be (1) a thing; (2) existing; and (3) movable, with (2) and (3) existing simultaneously."¹⁴⁶ In 1979, the Tax Court of Indiana concluded that electricity was not tangible personal property in *Mynsberge v. Department of State Revenue*.¹⁴⁷ While Indiana courts had never directly addressed whether electricity qualifies as "tangible personal property," in 1978, the Court of Appeals of Indiana determined that cable television signals were not tangible personal property, but rather a service.¹⁴⁸ The Tax Court of Indiana adopted the court's reasoning in *Cable Brazil*, holding that electricity purchased by Mynsberge was "not tangible personal property" and thus, Mynsberge's resale of electricity to Coppes did not render Mynsberge's purchase of electricity within the sales tax exemption.

144. *Id.*

145. *Id.* at 609-10.

146. *Id.* at 610.

147. 716 N.E.2d 629, 637 (Ind. Tax Ct. 1999). Richard Mynsberge leased buildings and equipment to Coppes, a manufacturer of kitchen cabinets. *Id.* at 630-31. Under the lease agreement, Coppes made monthly payments to Mynsberge in return for electricity. *Id.* at 631. Mynsberge paid a total of \$11,492.11 in gross retail (sales) tax on its purchases of electricity from NIPSCO during the tax years at issue. *Id.* Mynsberge filed for a refund with the Department of State Revenue for the sales tax it paid on the purchase of electricity; however, the Department denied Mynsberge's refund. *Id.* Mynsberge appealed this decision. *Id.* Mynsberge stated that Section 6-2.5-5-8 of the Indiana tax code provides that transactions involving tangible personal property are exempt from state gross retail tax if the person acquiring the property acquires it for resale, rental, or lease. *Id.* *Mynsberge*, 716 N.E.2d at 637-38. The court held that Mynsberge's purchase of electricity was a "retail transaction" subject to gross retail tax. *Id.* at 638.

148. *Dep't of State Revenue v. Cable Brazil, Inc.*, 380 N.E.2d 555, 559-61 (Ind. Ct. App. 1978).

2. Electricity as a Service

No court considers electricity a good under the U.C.C. under all circumstances.¹⁴⁹ Some courts draw a distinction between raw electricity and metered electricity, similar to the line drawn by some courts in strict products liability actions. One court determined that electricity in its raw state, such as in high-voltage lines, cannot be characterized as a good, but instead is a service; metered electricity passing through homes, on the other hand, does constitute a good.¹⁵⁰

In *Cincinnati Gas & Electric Co. v. Goebel*, the dispute involved a breach of contract action over unpaid bills for the sale of gas and electricity. Cincinnati Gas & Electric Co. brought an action alleging breach of contract. At that time however, no case law existed in Ohio that was on point. Consequently, the Hamilton County Municipal Court looked to other states' decisions concerning the issue.¹⁵¹ The court was most convinced by reasoning that distinguished electricity in its raw form from metered amounts passing

149. *E.g.*, *Singer Co., Link Stimulation Sys. Div. v. Baltimore Gas & Elec. Co.*, 558 A.2d 419, 424 (Md. Ct. Spec. App. 1989) (holding that the utility was not liable for implied warranties for failure to deliver power because the court had found no reported decision holding electricity to be a good while it remained within the utility company's distribution system). On August 29, 1986, Baltimore Gas and Electric (BG&E) sent a letter to Singer indicating the cause of power interruptin as faulty distribution system parts which were damaged by severe lightning storms. *Id.* at 423. Singer then sued BG&E asserting claims of contractual breach, breaches of the U.C.C.'s implied warranties, and negligence. *Id.* at 421. The trial court dismissed the implied warranty claims, because "Title 2 of the U.C.C. applied only to 'transactions in goods,' MD. COM. LAW CODE ANN. § 2-102 (2003), that electricity did not fall within the classification of 'goods' as defined in the U.C.C., MD. COM. LAW CODE ANN. § 2-105 (2003), and therefore the claims were inapplicable to the power outages at Singer's facility." *Id.* at 423. The court held that jurisdictions with similar or identical versions of the U.C.C. did not find electricity to be a "good" within the meaning of the U.C.C. *Id.* (citing *Hedges v. Pub. Serv. Co.*, 396 N.E.2d 933 (Ind. Ct. App. 1979); *Helvey v. Wabash County REMC*, 278 N.E.2d 608 (Ind. Ct. App. 1972); *Williams v. Detroit Edison Co.*, 234 N.W.2d 702 (Mich. Ct. App. 1975); *Farina v. Niagara Mohawk Power Corp.*, 438 N.Y.S.2d 645 (App. Div. 1981); *Cincinnati Gas & Elec. Co. v. Goebel*, 502 N.E.2d 713 (Ohio Mun. 1986)). Those courts based their decision on the fact that electricity, prior to being metered and passing into consumers' homes, was not a good within the meaning of their states' U.C.C.s. The court held that electricity, while in the transmission and distribution system, is not a good within Title 2 of Maryland's U.C.C. *Id.* at 424.

150. *Cincinnati Gas*, 502 N.E.2d at 715.

151. *Id.* at 714-15.

through utility-owned conduits and into the homes of consumers.¹⁵² The court held that once electricity passes through the meter and into the home of the consumer, it becomes a good as defined by the U.C.C.¹⁵³ The court, however, after determining electricity did constitute a good under the U.C.C., granted the defendant's motion for summary judgment because Ohio's U.C.C. contained a four-year statute of limitations, and plaintiff failed to commence its action within four years.¹⁵⁴

In most cases involving stray voltage, courts typically hold that stray voltage does not fall within the U.C.C. because stray voltage usually does not pass through the customer's meter.¹⁵⁵ In *G & K Dairy v. Princeton Electric Plant Board*, the U.S. District Court for the Western District of Kentucky found that a municipal electric board that received electricity from the Tennessee Valley Authority did not manufacture the product within the meaning of strict liability doctrine.¹⁵⁶ Kentucky had adopted the strict liability doctrine of the Restatement Second of Torts, and applied Section 402A to the claim that G & K Dairy's cattle were injured by stray electricity.¹⁵⁷ The court found that under Kentucky law, "strict products liability ... is unavailable against one who renders a service as opposed to one who manufactures or supplies a 'product.'"¹⁵⁸ The court placed much weight on the term "service" which was used "consistently" by the Kentucky Public Service Commission's regulations in reference to the furnishing of electricity.¹⁵⁹ The court stated that because Princeton Electric Plant Board did not generate electricity, but rather received it and distributed it to its customers, it provided a service and products liability could not be applied.¹⁶⁰

A Maryland court determined that raw electricity did not constitute a good under the Maryland U.C.C.¹⁶¹ Raw electricity still

152. *Id.* at 715.

153. *Id.*

154. *See id.* at 714-15.

155. *See G & K Dairy v. Princeton Elec. Plant Bd.*, 781 F. Supp. 485, 490 (W.D. Ky. 1991).

156. *Id.* at 489.

157. *Id.*

158. *Id.*

159. *Id.*

160. *Id.*

161. *See Singer Co. Link Stimulation Sys. Div. v. Balt. Gas & Elec. Co.*, 558 A.2d 419, 424

within the utility's distribution system exists in an unmarketed and unmarketable state.¹⁶² This high-voltage electricity, not yet converted into usable electricity, "is not the refined product that the customer intends to buy."¹⁶³

Other courts do not make such form distinctions, but characterize electricity, in general, as a service.¹⁶⁴ In *Farina v. Niagara Mohawk Power Corp.*, New York refused to recognize electricity as a good.¹⁶⁵ Mr. Farina was killed when an antenna he was removing from the roof of his home came in contact with an electrical wire owned by Niagara Mohawk Power Corporation.¹⁶⁶ The administratrix of Farina's estate sued Mohawk in tort and for breach of warranty.¹⁶⁷ Unlike in Texas or Indiana where the courts found that electricity was not a product at the stage when the

(Md. Ct. Spec. App. 1989). The Link Division of the Singer Company, a high tech engineering firm which made training simulators for government and industry, opened a manufacturing plant in Maryland. *Id.* at 422. Baltimore Gas & Electric Company supplied the electricity to the manufacturing plant. *Id.* Singer's business was dependent on an uninterrupted supply of electricity because its simulators could not run without it. *Id.* In addition, the heating, ventilation, and cooling systems in the building were driven by electricity. *Id.* Singer experienced eight electrical power interruptions or outages and claimed that such interruptions violated the U.C.C. implied warranties of merchantability and fitness for purpose. *Id.* at 421, 422.

162. *Hedges v. Pub. Serv. Co.*, 396 N.E.2d 933, 935 (Ind. Ct. App. 1979).

163. *Balt. Gas & Elec.*, 558 A.2d at 424 (internal citation omitted). This raw electricity included electricity in the overhead cable transmission lines. *See id.*

164. *See Encogen Four Partners, L.P. v. Niagara Mohawk Power Corp.*, 914 F. Supp. 57, 61 (S.D.N.Y. 1996). Encogen owned and operated a cogeneration facility in New York. *Id.* at 58. Niagara Mohawk provides electric gas and power throughout a larger portion of upstate New York. *Id.* Niagara entered into a power purchase agreement with Encogen where Niagara agreed, as required by PURPA and state statute, to purchase all electricity produced by Encogen. *Id.* at 58-59. Niagara made payments for the electricity, but the payments were below those amounts agreed in the power purchase agreement. *Id.* at 60. In a similar case, *Norcon*, an independent power producer, entered into a power purchase agreement with Niagara similar to the Encogen agreement. *Norcon Power Partners v. Niagara Mohawk Power Corp.*, 163 F.3d 153, 153-54 (2d Cir. 1996). In both cases, Niagara requested adequate assurances of future performance from Encogen and Norcon regarding their ability to continue to produce electricity. *Encogen*, 914 F. Supp. at 60; *Norcon*, 163 F.3d at 156-57. Under New York law, the sale of electricity is not a sale of "goods," but rather a service. *Encogen*, 914 F. Supp. at 61. Thus, the U.C.C. would not govern contracts such as the *Encogen* and *Norcon* electric power purchase agreements. *Id.* The United States District Court in *Encogen* cited *Farina* as a basis for its conclusions, but just as in *Farina*, the Encogen court did not state any analysis that lead to its holding. *Id.*

165. 438 N.Y.S.2d 645 (App. Div. 1981).

166. *Id.* at 700.

167. *Id.*

contact occurred, the New York court concluded that electricity could never be a product or good.¹⁶⁸ The New York court, after deeming electricity a service, refused to enforce the U.C.C.'s provision governing the right to demand adequate assurances of future performance.¹⁶⁹

In a similar case the Court of Appeals of Michigan held, in *Buckeye Union Fire Insurance Co. v. Detroit Edison Co.*,¹⁷⁰ that electricity was a service to which a warranty would attach under Article 2 of the U.C.C.¹⁷¹ On April 17, 1963, a fire destroyed a building that was insured by Buckeye Union Fire Insurance Company.¹⁷² Buckeye, along with a building owner, brought a suit against the Detroit Edison Company for negligence and breach of implied warranties of fitness and merchantability regarding the electricity supplied by Edison.¹⁷³ The trial court held that electricity is not a good or commodity to which implied warranties would attach because of its properties or character.¹⁷⁴ A Massachusetts court similarly refused to acknowledge electricity as a good in *New Balance Athletic Shoe, Inc. v. Boston Edison Co.*¹⁷⁵ A New Balance athletic shoe factory in Boston was severely damaged by a fire caused by an electrical power surge emanating from equipment owned and operated by Boston Edison Company.¹⁷⁶ New Balance had asserted a claim for breach of the warranties under sections 313-315 of Article 2 of the U.C.C. Boston Edison moved for, and the court granted, summary judgment on the warranty claims.¹⁷⁷ This was a case of first impression in Massachusetts.¹⁷⁸ Consequently, the *New Balance* court looked to other jurisdictions for guidance.¹⁷⁹

168. *Id.* at 700-01.

169. U.C.C. § 2-609 (1989).

170. 196 N.W.2d 316 (Mich. Ct. App. 1972).

171. *Id.* at 318.

172. *Id.* at 317.

173. *Id.*

174. *Id.* The trial court went on to state that the sale of electricity is a service and therefore the U.C.C. does not apply. *Id.* The court stated that this was a case of first impression and that, until some general principles evolve, the expansion in this area should proceed on a case-by-case basis. *Id.* at 318.

175. 1996 WL 406673, *3 (Mass. Super. 1996).

176. *Id.* at *1.

177. *Id.*

178. *Id.* at *2.

179. *Id.*

The court rejected the reasoning of the court in *Helvey* stating that it was troubled by the sweeping implications that this analysis may have on public utilities.¹⁸⁰ The court stated that the *Helvey* court went too far in its analysis.¹⁸¹ For these reasons, the *New Balance* court held that electricity is not a good as defined by the U.C.C., and therefore the warranty provisions of the U.C.C. did not apply.¹⁸²

In *Navarro County Electric Cooperative v. Prince*, the plaintiff unsuccessfully attempted to sue a utility for a violation of the U.C.C. implied warranty of merchantability for sale of a good under the Texas Business and Commerce Code.¹⁸³ The plaintiff lived in a mobile home beneath high voltage electrical transmission lines.¹⁸⁴ The wires did not directly carry electricity into plaintiff's home.¹⁸⁵ While adjusting a television antenna beneath the wires, plaintiff received a shock, causing injuries.¹⁸⁶ Prince sued Navarro County Electrical Cooperative on an implied warranty theory.¹⁸⁷ The Court of Appeals of Texas held that the transmission of electrical energy along high-voltage lines, which eventually lead into a transformer, was not goods within the meaning of the state commercial code.¹⁸⁸ The court reasoned that the legislature, in passing the implied warranty statute, meant to confine its applicability to tangible manufactured or produced products that normally might be found in bulk quantity or in packaged goods.¹⁸⁹ When applying those requirements to electric energy, the court found that electricity could not be classified as a fungible good nor could it be adequately packaged or labeled.¹⁹⁰ The court found that the sale of electricity would more fittingly be termed the rendition of a service.¹⁹¹

180. *Id.*

181. *Id.*

182. *Id.* at *3.

183. 640 S.W.2d 398 (Tex. App. 1982).

184. *Id.* at 398.

185. *Id.*

186. *Id.* at 399.

187. *Id.*

188. *Id.* at 400.

189. *Id.*

190. *Id.*

191. *Id.* The Texas Business and Commercial Code states that:

Goods to be merchantable must be at least such as (1) pass without objection

Electricity has been found to be “tangible” for purposes of subjecting it to taxation.¹⁹² Legislation in several states also defines electricity as tangible.¹⁹³

The word “intangible” from its latin roots means something that cannot be touched or perceived by touch. Webster’s Third New Int’l Dictionary (3d ed. 1993). Electricity can be touched, and when a person does so and thereby completes an electrical circuit, it may be the last earthly sensation he or she feels.¹⁹⁴

in the trade under the contract description; and (2) in the case of fungible goods, are of fair average quality within the description; and (3) are fit for the ordinary purposes for which such goods are used; and (4) run, within the variation permitted by the agreement, of even kind, quality and quantity within each unit and among all units involved; and (5) are adequately contained, packaged, and labeled as the agreement may require; and (6) conform to the promises or affirmations of fact made on the container or label if any.

TEX. BUS. & COMM. CODE ANN. § 2.314(b) (West 2003). Plaintiff used these requirements to say first, that the electricity was not fit for the purpose for which it was to be used. *Navarro*, 640 S.W.2d at 399. Second, the plaintiff contended that the implied warranty extended to the container of the product, the wiring, and that it was unfit for transporting electricity. *Id.* Plaintiff testified that the current jumped from the transmission line to the antenna. *Id.*

192.

The General Assembly when using the word tangible in referring to personal property had in mind the ordinary and popularly understood meaning of such term as indicated in Webster’s first definition thereof, which is “Capable of being touched; also, perceptible to the touch; tactile; palpable.”

....

From the evidence it appears that although energy and mass are closely interrelated, indestructible, equivalent, interchangeable, directly proportional to and may be equated with each other, yet energy as such cannot be separated from mass or matter and stored, weighed, transported, handled, liquified, solidified, photographed, touched or otherwise perceived by the senses in its own right or capacity separate and apart from mass or matter.

Farrand Coal Co. v. Halpin, 140 N.E.2d 698, 700 (Ill. 1957) (citation omitted).

193. Kansas’ statute states, for example, that “[p]roperty which is consumed’ means tangible personal property which is ... used ... or dissipated within one year.” KAN. STAT. ANN. § 79-3602 (1987 & Supp. 2002). Electricity qualifies as such property. New Mexico defines tangible personal property to include electricity. *See* N.M. STAT. ANN. § 7-9-3 (Michie Supp. 2003). Arizona states that, “[p]urchase’ means any transfer, exchange or barter, conditional or otherwise, in any manner or by any means, of tangible personal property for a consideration, including transactions by which the possession of property is transferred but the seller retains the title as security for payment.” ARIZ. REV. STAT. ANN. § 42-5151 (West 1999 & Supp. 2003). Though not specifically deemed tangible property, Louisiana has not explicitly excluded electricity or other utilities from its tangible property definition. *See* LA. ADMIN. CODE tit. 61, § 4301 (West Supp. 2003).

194. *Utilicorp United, Inc. v. Dir. of Revenue*, 75 S.W.3d 725, 728 n.6 (Mo. 2001). In Florida statutes, “[t]angible personal property’ means all goods, chattels, and other articles

On the other hand, decisions in several other states declare electricity to be intangible.¹⁹⁵ "Electricity is rather an intangible asset and the word 'property' is perhaps not the most apt word by which to describe the supply of electrical energy thus sought to be acquired for the use of the city."¹⁹⁶ The California Board of Equalization considers electricity to be an intangible in the deregulated modern era.¹⁹⁷ If electricity is considered an intangible, it cannot be a good, pursuant to the U.C.C.

Some courts are altering the characterization when electricity passes through the retail meter.¹⁹⁸ These metering distinctions may

of value ... capable of manual possession and whose chief value is intrinsic to the article itself." *Davis v. Gulf Power Corp.*, 799 So.2d 298, 300 (Fla. Dist. Ct. App. 2001) (stating that "[e]lectricity has the characteristics of tangible personal property described" in the statute).

195. See *Miller v. City of L.A.*, 197 P. 342, 343 (Cal. 1921); *People v. Menagas*, 11 N.E.2d 403, 405 (Ill. 1937) (referring twice to electrical energy as being intangible).

We are convinced that electricity is not tangible personal property under the 1993 Definition. The 1993 Definition provides that qualifying machinery must be used either "for manufacturing ... tangible personal property ... or for the generation of electricity." ... If the legislature had considered electricity tangible personal property, it would not have drafted a specific provision for the "generation of electricity." Because the Legislature used the disjunctive term "or" in the 1993 Definition, we find that generating electricity is not manufacturing tangible personal property.

N. States Power Co. v. Comm'r of Revenue, No. 6639, 1997 WL 66759, at *2 (Minn. Tax Ct. Feb. 14, 1997) (footnotes omitted). Although decisions applying the tax laws support the court's conclusion that electricity does not constitute tangible personal property, there is some tension between this conclusion and cases decided under the U.C.C. This is worthy of mention because courts often look to the U.C.C. for guidance in interpreting the tax laws. See *Mynsberge v. Dep't of State Revenue*, 716 N.E.2d 629 (Ind. Tax Ct. 1999). In *Mynsberge*, both petitioner and respondent, Indiana Department of State Taxation, moved for summary judgment in petitioner's appeal from respondent's final determination denying petitioner's claim for refund of paid gross retail sales taxes. *Id.* at 631. Indiana imposes an excise tax (gross retail or sales tax) on certain sales made within the state. See IND. CODE ANN. § 6-2.5-2-1(a) (Michie 2001). This tax is not imposed on all sales taking place within Indiana, but rather on only those sales that constitute "retail transactions." *Monarch Beverage Co. v. Dep't of State Revenue*, 589 N.E.2d 1209, 1210 (Ind. Tax Ct. 1992). The Indiana General Assembly has also enacted a number of exemptions from the gross retail tax. See IND. CODE ANN. §§ 6-2.5-5-1 to 6.2.5-5-38.2 (Michie 2001 & Supp. 2003).

196. *Miller*, 197 P. at 343.

197. See Corporate Franchise Hearings Cal. State Bd. of Equalization (April 17, 2002), available at <http://www.boe.ca.gov/meetings/pubmins/041702.pdf>. Electricity cannot be classified as tangible personal property. Electricity cannot be traced to a destination and cannot be stored for future use and is therefore intangible. In this regard, the California Taxpayers Association has alleged that characterizing electricity as tangible property would create a tax incentive for out-of-state firms not to sell electricity to California. See *id.*

198. See discussion *infra* Part III.B.3.

create two separate rules for adjudicating electric market disputes. Wholesale electricity transactions and damages would be assessed as services transactions, not involving a product or a good, and therefore governed by common law. Conversely, retail electricity transactions and damages would be assessed as goods transactions, therefore governed by the U.C.C.

Characterizing electricity as a service does not relieve a utility or other provider of liability, it merely imposes different decision rules on contracts and purchases, rather than strict products liability or U.C.C. implied warranties.¹⁹⁹ It seems several states hold utilities and other enterprises dealing in electricity to a higher duty to exercise the utmost care to protect customers and the public and to prevent destruction of life and property. It may be particularly vexing to attempt to apply damages remedies under the U.C.C. to electricity transactions. The U.C.C. damages remedies infer either a resale or market value to the electric good. However, since electricity can be stored, if at all, for only a fraction of a second before it perishes, the actual good has no long-term resale or remarket value. The U.C.C., nonetheless, assumes some such value in its damages' formula.

B. Electricity and Tort

Tort law governs situations where electricity injures someone or damages property. In tort law, strict liability can be imposed under state precedent on all manufacturers or distributors of defective or inherently dangerous products.²⁰⁰ In a deregulated market, injuries and damages related to electricity can still occur, and retailers, wholesalers, brokers, marketers, and utilities can be sued, as illustrated by the energy crisis in California.²⁰¹ Courts here, again, cannot agree as to which legal category electricity belongs.

199. See, e.g., *G & K Dairy v. Princeton Elec. Plant Bd.*, 781 F. Supp. 485, 491 (W.D. Ky. 1991). In cases where the existence of a duty is unclear, the question is a question of law for the court.

200. To invoke strict liability under Section 402A of the Restatement (Second) of Torts, the plaintiff must prove he or she purchased the product from someone engaged in the business of selling the product, the product was defective, the product caused harm to the plaintiff or his or her possessions, and the manufacturer or distributor put the product into the stream of commerce. RESTATEMENT (SECOND) OF TORTS § 402A (1965).

201. See *supra* Part I.

State courts resolve the tort characterization of electricity differently, with the majority of states determining that electricity is a product and a minority of states holding that electricity is a service. Most state courts that determine electricity is a product define "product" as any object possessing intrinsic value, capable of delivery, and produced for introduction into trade or commerce.²⁰² These courts find that electricity is a commodity that can be manufactured, transported, and sold.²⁰³

Correspondingly, as with electricity contracts, some courts find that the distribution of electricity is a service while the actual electricity itself is a consumable product. In *Otte v. Dayton Power & Light Co.*,²⁰⁴ the Supreme Court of Ohio held that electricity is not a "product" for strict liability purposes.²⁰⁵ The plaintiffs bought a dairy farm and operated it for several years.²⁰⁶ In 1982, the plaintiffs noticed that milk production declined by twenty-five percent, one-half of the cows contracted udder infections, and the cows were acting strangely.²⁰⁷ Stray neutral-to-earth voltage had been released onto their property and the cattle were apparently affected when they came into contact with grounded electrical devices.²⁰⁸ The plaintiffs sued the utility for negligence, breach of contract, and strict liability.²⁰⁹ The Supreme Court of Ohio rejected the plaintiff's strict liability claim, holding that electricity is not a "product" within the meaning of section 402A of the Restatement (Second) of Torts.²¹⁰ The court defined "product" as "anything made by human industry or art. Electricity appears to fall outside this definition ... because electricity is the flow of electrically charged particles along a conductor.... [The defendant did] not manufacture electrically charged particles, but rather, set[] in motion the necessary elements that allow[ed] the flow of electricity."²¹¹ The

202. See *infra* notes 226, 234.

203. See discussion *infra* Part III.B.1.

204. 523 N.E.2d 835 (Ohio 1988).

205. *Id.* at 838-39.

206. *Id.* at 836.

207. *Id.*

208. *Id.*

209. *Id.* at 837.

210. *Id.* at 838-39.

211. *Id.* at 838.

Ohio decision held that "[s]uch a system is ... a service."²¹² Most of the court opinions, however, do not address the critical physical properties of electricity that make it a product.

Some courts hold that electricity is only a product once it is sold. These courts typically determine that electricity is sold once it passes through the consumer's meter.²¹³ Oddly, electricity that is still in power lines typically is considered a service.²¹⁴ Consequently, some of these courts have been reluctant to impose strict liability on utilities where injuries occurred on the utility side of the consumer's retail meter.

Yet, other courts impose strict liability on utilities largely based on public policy reasons.²¹⁵ These public policy reasons include

212. *Id.*

213. The courts that have labeled electricity a product "have been consistent in holding that the electricity must have been placed into the stream of commerce before § 402A strict liability can attach." *Schriner v. Pa. Power & Light Co.*, 501 A.2d 1128, 1133-34 (Pa. Super. Ct. 1985) ("[I]f electricity in a defective condition, unreasonably dangerous passes through the meter of a user or consumer and into the stream of commerce, causing physical harm ..., the doctrine of strict liability in tort may be applied against the public utility"); *see Smith v. Home Light & Power Co.*, 734 P.2d 1051, 1055 (Colo. 1987) ("[A]t least until the electricity reaches a point where it is made available for consumer use, it is not a 'product' that has been 'sold' or otherwise 'placed in the stream of commerce' for the purpose of strict products liability under § 402A."); *Ransome v. Wis. Elec. Power Co.*, 275 N.W.2d 641, 649 (Wis. 1979) (holding power company strictly liable for damage caused by electricity traveling through the utility's lines into the plaintiff's house at a voltage between 1000 and 4000 volts). The point at which electricity enters the stream of commerce, losing its character as a service and assuming that of a product, has been subject to dispute. Some jurisdictions consider electricity to have left the utility's control only after it has passed through the customer's electric meter, the point where the customer's charges are generally computed. *See Mancuso v. S. Cal. Edison Co.*, 232 Cal. App. 3d 88, 100 (1991) ("Electricity has been deemed to enter the stream of commerce when it leaves the transmission lines and passes through the consumer's meter."); *Curtiss*, 1997 WL 702690, at *6 ("[A]s a practical and legal matter the acceptance of electricity as a product has been very rare. The concept of strict liability for the use or misuse of electricity has not found a solid home in the area of product liability case law.... [E]lectricity is not a 'product'"); *Pub. Serv. Ind., Inc. v. Nichols*, 494 N.E.2d 349, 355 (Ind. Ct. App. 1986) ("Electricity is considered to be placed into the stream of commerce when it reaches its destination in a home or factory."); *Hills v. Ozark Border Elec.* 710 S.W.2d 338, 342 (Mo. Ct. App. 1986) (Prewitt, C.J., concurring) ("[The majority did] not decide if strict liability in tort applies to sellers of electricity placed into the 'stream of commerce,' but the opinion reviews causation as if strict liability does apply."); *Otte*, 523 N.E.2d at 842 ("[S]trict liability in tort for damages caused by [stray voltage] is not a cause of action that may be asserted against a public utility."); *Kolpin v. Pioneer Power & Light Co., Inc.*, 469 N.W.2d 595, 601 (Wis. 1991) (noting that the lower court held that stray voltage is not a product).

214. *See supra* note 213.

215. *See discussion infra* Part III.B.2.

providing a shortcut to liability where negligence is present but hard for injured parties to prove, creating economic incentives to improve product safety, and spreading the risk of loss among all who use the product by making manufacturers internalize these ultimate costs in product prices. In contrast, a number of courts reject the public policy argument as arbitrary, illegitimate, and insufficient to support the imposition of strict liability in a highly regulated industry, such as electric power. This argument is vitiated by recent deregulation in the states.

1. Electricity as a Good: The Product Inquiry

Strict liability may attach to make a nonnegligent manufacturer liable for injury caused by a product (or good) placed in the stream of commerce.²¹⁶

A plaintiff bringing a strict products liability action need *not* prove negligence, recklessness, or intention to harm by the manufacturer or distributor of the product, thus facing a lower legal burden of proof to win a lawsuit at trial.²¹⁷ Hence, injured plaintiffs who sue any electric industry participant in tort will ask the court to characterize electricity as a product or good in order to take advantage of this lessened burden of proof. Utilities or other accused defendant electricity market participants, on the other hand, strive to avoid supplier liability and will argue that electricity constitutes a service. Courts do not impose strict products liability on services.²¹⁸

Most states have yet to resolve the issue of whether electricity is a product for strict products liability purposes. The majority of state courts reaching the issue have held that electricity is a product rather than a service.²¹⁹ At least eight states have determined electricity to be a product, including California, Colorado, Connecticut, Indiana, New Jersey, Pennsylvania, Texas,

216. See, e.g., *Singer Co., Link Simulation Sys. Div. v. Balt. Gas & Elec. Co.*, 558 A.2d 419 (Md. Ct. Spec. App. 1989) (holding that utility company's liability is limited to instances of ("willful neglect" or "willful"); see also RESTATEMENT (SECOND) OF TORTS § 402A (1986).

217. See *id.*

218. See, e.g., *Allied Props. v. John A. Blume & Assoc.*, 102 Cal. Rptr. 259, 264 (Ct. App. 1972); see, also, *Fogo v. Cutter Labs., Inc.*, 137 Cal. Rptr. 417, 422 (Ct. App. 1977) (deeming the sale of blood a service and so outside of strict products liability actions).

219. See *supra* notes 204, 213.

and Wisconsin.²²⁰ At least two other states—New York and Ohio—consider electricity a service rather than a product.²²¹ This result could favor the defendant electricity market participant.

Where plaintiffs sustain no actual losses, but only allege economic losses, can they recover? In *Bamberger & Feibleman v. Indianapolis Power & Light Co.*,²²² the plaintiffs' attorneys asserted that Indianapolis Power & Light was liable under the Indiana Product Liability Act for economic losses arising from the interruption of electrical service.²²³ In 1996, the Court of Appeals of Indiana held that electricity can be a "product" but must be in a marketable and marketed state at the time it causes the injury in order to be treated as a "product" under strict liability.²²⁴ The test maintained that electricity was only placed into the stream of commerce once it "reaches its destination in the home or factory."²²⁵

A product, according to one California court, "means any object possessing intrinsic value, capable of delivery either as an assembled whole or as a component part or parts, and produced for introduction into trade or commerce."²²⁶ In *Pierce v. Pacific Gas & Electric Co.*, lightning struck several utility company transformers, two of which were located on the plaintiff's property, causing the plaintiff's home to lose electricity.²²⁷ The utility company came to the plaintiff's property and replaced the transformers, but did not test the replacement transformers before installing them.²²⁸ As the crew from the utility company was installing one of the transformers, it exploded causing a rupture in the gas line located on the

220. See *supra* note 213.

221. See *infra* notes 251-62 and accompanying text.

222. 665 N.E.2d 933 (Ind. Ct. App. 1996).

223. *Id.* at 935.

224. See *id.* Two law firms sought damages resulting from the closure of their offices during an electric power outage. *Id.* at 937. The Court of Appeals of Indiana did not state its reasons for determining electricity was a "product," but rather focused its analysis on whether electricity was placed into the stream of commerce at the time the injury occurred. *Id.* The court cited the court's analysis in *Petroski* that provided a test for determining when electricity is placed into the stream of commerce. *Id.* (citing *Petroski v. N. Ind. Pub. Serv. Co.*, 354 N.E.2d 736, 747 (Ind. Ct. App. 1976)). The Court of Appeals of Indiana held that the electricity in this case never reached its destination. *Petroski*, 354 N.E.2d at 747.

225. *Bamberger*, 665 N.E.2d at 937.

226. See *Pierce v. Pac. Gas & Elec. Co.*, 212 Cal. Rptr. 283, 288 n.4 (Ct. App. 1985) (citing Model Uniform Product Liability Act, 44 Fed. Reg. 62,714, 62,717 (1979)).

227. *Id.* at 285.

228. *Id.*

plaintiff's property.²²⁹ The plaintiff went to shut off the propane gas and received a serious shock from the propane gas tank's shut-off valve.²³⁰ The shock tightened her hand around the valve, which prevented her from letting it go.²³¹ About ten to twenty seconds later, the plaintiff fell onto the propane tank, the electricity blew her hand off the valve, and she tumbled away from the tank and down a six-foot embankment.²³²

The plaintiff was injured by the fall and brought suit alleging negligence and strict liability for defective products.²³³ The court relied on *Petroski* and *Ransome* in support of its finding that electricity was a "product." The court defined "product" as any object or possession of intrinsic value, capable of delivery, and produced for introduction into trade or commerce.²³⁴ The court stated that the electricity did have intrinsic value and it was in the process of being released into the stream of commerce when the defendant allowed it to escape into the plaintiff's residence in an unsafe form.²³⁵

The *Pierce* court also addressed the issue of whether electricity must be a "good" for contract law purposes if it is a "product" for tort law purposes.²³⁶ Without any extensive analysis, the court stated that in light of its finding that electricity is a "product" for purposes of strict liability, it assumed that electricity is a "good" for purposes of the U.C.C.²³⁷ This is a critical logical nexus that few opinions to date have broached. The court stated that the plaintiff could have brought a successful implied warranty of fitness for particular purpose claim in conjunction with its strict liability claim.²³⁸

The California court reasoned that "[e]lectricity is a commodity which, like other goods, can be manufactured, transported and

229. *Id.*

230. *Id.*

231. *Id.*

232. *Id.*

233. *Id.*

234. *Id.* at 290-91.

235. *Id.* at 291-92.

236. *Id.* at 293-94.

237. *Id.*

238. *Id.*

sold,” and as such can only be classified as a product.²³⁹ Interestingly, having used physical characteristics to justify its decision, the court refused to dwell on electricity’s physical properties and identify which specific properties of electricity constitute a product.²⁴⁰ This court’s failure to address the technical characteristics of electricity is the norm, rather than the exception, in electricity litigation.

In a leading Wisconsin case, the Supreme Court of Wisconsin stated that it “need not be concerned with ... [the] accurate[, technical] descriptions” of electricity.²⁴¹ The distribution of electricity may be a service, but the actual electricity, in its ordinary use, is a consumable product, according to the Wisconsin court.²⁴² This product—electricity—caused the injuries leading to a strict products liability suit, rather than the fact of its distribution.²⁴³ Moreover, because the court believed the ordinary user contemplated electricity as a product, the court construed it as one.²⁴⁴

The court, however, failed to fully comprehend the tenuousness of one’s ability to actually control and confine electricity. Tracking exactly where any individual electron travels is impossible. As the defendant utility company in a California case argued, electricity is a force, like the wind, with the potential to do work.²⁴⁵ Thus, if “control” is a benchmark physical characteristic of a product, then it is hard to reasonably characterize electricity as a product, created and controlled until use and consumption.

2. Public Policy Considerations

Instead of concentrating on technical definitions of electricity, some courts imposing strict products liability on utilities and suppliers rely on public policy reasons to support their decisions. For example, the California *Pierce* court stated that it did not

239. *Id.* at 290.

240. *Id.*

241. *See Ransome v. Wis. Elec. Power Co.*, 275 N.W.2d 641, 643 (Wis. 1979).

242. *Id.*

243. *Id.* at 650.

244. *Id.* at 643.

245. *See Pierce v. Pac. Gas & Elec. Co.*, 212 Cal. Rptr. 283 (Ct. App. 1985).

definitively depend on definitional arguments to determine whether electricity constituted a product or a service.²⁴⁶ Instead, and more significantly, the court held that public policy reasons support the imposition of strict products liability,²⁴⁷ including:

- (1) to provide a shortcut to liability where negligence may be present but is difficult to prove,²⁴⁸
- (2) to provide an economics incentive for improved product safety,²⁴⁹
- (3) to induce the reallocation of resources toward safer products, and
- (4) to spread the risk of loss among all who use the products.²⁵⁰

Public policy considerations, however, can cut both ways. Favoring suppliers of electricity and other accused electricity market defendants, an Ohio court rejected any public policy-minded justification for the imposition of strict products liability.²⁵¹ According to that court, public policy considerations lack legitimacy in a highly regulated environment.²⁵²

246. *Id.* at 288.

247. *Id.*

248. A negligence standard requires a plaintiff to present a jury with evidence of a complex electrical system, requiring knowledge beyond that of the average juror.

249. Some courts believe that a utility can best position itself to discover and correct defects, and strict products liability creates incentives to use and develop better products before injuries occur. In fact, utilities can spread the cost of injuries to all consumers, rather than the blameless victims.

250. In light of this rationale, some courts have suggested that utilities, instead of raising prices, could also protect against strict liability actions by either purchasing insurance or implementing a form of self-insurance. The consumer then enjoys the right to rely on the apparent safety of the electrical product, while the seller retains the risk since it creates that risk by placing the defective product into the market. Also, courts have rejected the utilities' argument that since a utility lies at the mercy of public regulation, the utilities are somehow restricted from reducing the electricity's risk. In practice utilities are limited in how far they can alter electric delivery systems because of limits on how that cost can be passed on to the public. Yet, in spite of both arguments, courts do not need the strict products liability doctrine to ensure cost-spreading and increased safety, or to overcome problems of proof. Negligence actions fulfill the same public policy purposes, but without making the leap to the strict products liability doctrine. Negligence actions impose on utilities, generators, and distributors the responsibility to monitor and inspect the service of electricity without the unreasonable liability imposed by strict products liability law. Many courts, however, err on the side of caution, subjecting electric participants to enormous liability.

251. See *Otte v. Dayton Power & Light Co.*, 523 N.E.2d 835, 838 (Ohio 1988).

252. See *id.*

In other industries, manufacturers may allocate the risk of strict products liability by raising consumer prices to reflect this legal risk. In a regulated environment, however, the transmission and distribution system owner cannot raise its prices at will and pass on the risk to consumers.²⁵³ Utilities must petition their respective utility commission for a rate increase before any such risk-allocation can occur.²⁵⁴ Furthermore, in the Ohio example, the damage resulted from stray voltage,²⁵⁵ which several courts have explicitly deemed a natural and unavoidable by-product of electricity transmission.²⁵⁶ Although utilities may be incapable of making an inherently safer *product* to prevent these types of harms,²⁵⁷ in such cases, liability could be avoided for public policy reasons.

The Ohio court's public policy reasoning may begin to lose some of its legitimacy in light of deregulation and the onset of open retail competition. Once states complete deregulation, utilities, generators, and marketers will face the same incentives and disincentives as other industries. Nevertheless, the transmission and distribution function, for the intermediate term at least, will remain a regulated monopoly.

Similar to the Ohio court's reasoning, a New York court found public policy reasons insufficient to impose strict products liability.²⁵⁸ In that case, a healthy tree fell on several power lines, causing abnormally high voltage to pass into the plaintiff's house.²⁵⁹ Surprisingly, the court determined that imposing strict liability would have little, if any, impact on the defendant's future conduct.²⁶⁰ The utility could not control the likelihood of trees falling on lines, absent eliminating all trees located near lines.²⁶¹ Ruling in favor of the utility, the court dismissed the case.²⁶²

253. *See id.*

254. *Cf. id.* (noting that "the public utility does not operate in a free market").

255. *See id.* at 838.

256. *See, e.g., G & K Dairy v. Princeton Elec. Plant Bd.*, 781 F. Supp. 485 (W.D. Ky. 1991).

257. *See Otte*, 523 N.E.2d at 842.

258. *See Bowen v. Niagara Mohawk Power Corp.*, 590 N.Y.S.2d 628, 631 (App. Div. 1992).

259. *Id.* at 629.

260. *See id.* at 632.

261. *See id.*

262. *Id.*

3. *The Meter: When Is Electricity Transformed from a Service to a Good?*

Strict products liability actions or lawsuits, favored by injured plaintiffs, require defendant electric industry participants to place the electricity product into the stream of commerce—or more simply, to sell it. To determine whether electricity has been sold, some courts consider whether the electricity has passed through a consumer's meter, reasoning that by then it has been sold and the utility can levy charges.²⁶³ The states making such a distinction include California, Colorado, Connecticut, Kentucky, Michigan, New Jersey, New York, and Wisconsin.

Kentucky courts have found this a crucial distinction, refusing to impose strict products liability to injuries occurring upstream of the retail meter, outside the home or business. Other states, such as Colorado, Michigan, New York, and Indiana have flatly rejected the application of strict liability, because the electricity had not yet flowed through the retail meter. In a 1976 case in Indiana, a fourteen-year-old boy suffered serious injuries when he touched an electric distribution line.²⁶⁴ The line was located in the upper branches of a tree where he often played.²⁶⁵ The boy brought an action for negligence and strict liability, arguing that the public utility was a manufacturer of a defective product, it placed that product into the stream of commerce, and that he was in the zone of foreseeable harm from such a defect (as required by § 402A of the Restatement (Second) of Torts).²⁶⁶ The court concluded that strict liability cannot be imposed on the utility because the product

263. See *C.G. Bryant v. Tri-County Elec. Membership Corp.*, 844 F. Supp. 347, 350 (W.D. Ky. 1994).

264. *Petroski v. N. Ind. Pub. Serv. Co.*, 354 N.E.2d 736, 739 (Ind. Ct. App. 1976).

265. *Id.*

266. *Id.* at 747. The trial court found that there was no negligence on the part of the public utility. *Id.* at 739. On appeal, the *Petroski* court relied on *Helvey*, holding that electricity is a "product" under section 401A. *Id.* at 747; see *Helvey v. Wabash County REMC*, 278 N.E.2d 608, 611 (Ind. Ct. App. 1972). In addition, the *Petroski* court stated that "a literal 'sale' of goods is not necessary for the application of 402A." *Petroski*, 354 N.E.2d at 747. The test is only "whether the product has been placed in the stream of commerce.... [U]ntil the electricity reaches its destination in a home or factory, it is transmitted by equipment over lines under the exclusive control of [the utility]." *Id.* The utility transmission lines "are not part of the end product," therefore, the utility "had not yet placed the product in the stream of commerce" while the electricity is in the lines. *Id.*

was not placed into the stream of commerce.²⁶⁷ This analysis ignores that much of the electricity in commerce is traded at the wholesale level before reaching the consumer.

On the other hand California, Connecticut, New Jersey, and Wisconsin have applied strict liability at a point near to where electricity had flowed through the meter.²⁶⁸ The Supreme Court of Wisconsin held that the doctrine of strict liability in tort applied to electricity when the electricity left the possession of the defendant in a defective condition as to be unreasonably dangerous.²⁶⁹

At the point electricity passes through a meter, it has been reduced to a voltage suitable for ordinary use, in contrast to the higher voltages found at a generation station or in transmission lines. Following this rationale in Georgia, a product's title need not have passed, nor the purchase price paid, for a product to enter the stream of commerce.²⁷⁰

The Supreme Court of Georgia held that electricity was a "product" within the meaning of their strict liability statute.²⁷¹ The decedent was towing a shrimp boat when a metal stanchion on the boat came into contact with an overhead power line.²⁷² When the

267. *Petroski*, 354 N.E.2d at 747.

268. See, e.g., *Ransome v. Wis. Elec. Power Co.*, 275 N.W.2d 641, 649 (Wis. 1979). In *Ransome*, the plaintiff brought an action against the defendant on a product liability theory claiming that at the time the electricity left the defendant's control, it was unreasonably dangerous. *Id.* at 648-49. The defendant claimed that the lightning was an act of God and a superseding intervening cause of the fire. *Id.* at 649. The trial court stated that the sale of electricity occurs at the meter and may be considered a service, but the electricity itself is a consumable product. *Id.* at 643. The Supreme Court of Wisconsin agreed with the trial court's holding that electricity is a product for strict liability purposes, stating that for the plaintiff to prevail he must prove the electricity, when it left the defendant's possession, was in a defective condition and unreasonably dangerous. *Id.* at 647. Section 402A of the Restatement (Second) of Torts defines "defective condition" as any "condition not contemplated by the ultimate consumer, which will be unreasonably dangerous to him." *Id.* at 649. Thus, the Wisconsin test of whether a product contains an unreasonable defect depends upon the reasonable expectations of the ordinary consumer about the characteristics of the product. See *id.* This is an objective test, not dependent upon the subjective knowledge of the particular injured consumer.

269. *Id.* at 648-49.

270. See *Monroe v. Savannah Elec. & Power Co.*, 471 S.E.2d 854, 856 (Ga. 1996). The supreme court also recognized that certain factual circumstances will require flexibility in determining whether the electricity actually passed through the meter and entered the stream of commerce. See *id.* at 856-58.

271. See *id.* at 855.

272. See *id.*

decendent stepped onto the dock, the electricity grounded through his body, the fuses did not blow, and he was killed.²⁷³ The supreme court stated that electricity has been deemed a product for strict liability purposes not merely because it can be produced, confined, controlled, transmitted, and distributed, but also because it is artificially manufactured, can be measured, bought and sold, changed in quantity or quality, delivered wherever desired, and is subject to larceny.²⁷⁴ The court affirmed the appellate court decision, which held that electricity is a product, but because the electricity had not passed through the meter, there was no sale as required by the statute.²⁷⁵ Georgia courts consider the relinquishment of control over the electricity and its marketability as key factors to be considered as to when it becomes a product.²⁷⁶

California courts also looked at whether the electricity had been metered.²⁷⁷ They have found that while still in the distribution system, electricity is a service, not a product.²⁷⁸ Electricity becomes a product, for the purposes of strict liability, once it passes through the customer's meter and into the stream of commerce.²⁷⁹

273. *See id.*

274. *Id.*

275. *See id.*

276. *See Zepp v. Mayor of Athens*, 348 S.E.2d 673 (Ga. Ct. App. 1986). In *Zepp*, plaintiff rural residents appealed an order of the Clarke Superior Court (Georgia) which awarded summary judgment in favor of defendants, mayor, and city council in an action disputing the rates charged for water that plaintiffs purchased from the city. *See id.* at 674-75.

We can see no appreciable difference between the sale of water and the sale of electricity when it comes to determining whether the sale of either commodity is a sale of goods. Water, like electricity, is a thing; it exists; it is "fairly identifiable" as a movable at the time of identification to the contract of sale. (In fact, we think water is even more identifiable as a movable than electricity.) In this regard we adopt the reasoning of the *Helvey v. Wabash County REMC*, ... court: "Logic would indicate that whatever can be measured in order to establish the price to be paid would be indicative of fulfilling both the existing and movable requirements of goods."

Id. at 677-78. Sales of electricity are not sales of services because electricity (1) does not essentially relate to activities conducted by individuals for the benefit of others and (2) is purchased for its "physical characteristics."

277. *See Mancuso v. S. Cal. Edison Co.*, 283 Cal. Rptr. 300 (Ct. App. 1991).

278. *See id.*

279. *See id.* at 307. The Court of Appeals of California held that the sale and delivery of electricity was the sale and delivery of a "product" for strict liability purposes once it is delivered. *Id.* at 308. The plaintiff owned and operated a furniture shop to which electric service was provided by the defendant utility. *Id.* at 302. Lightning struck a transformer causing the transformer to explode, causing one of the meters in the plaintiff's shop to

These diverse and inapposite reasonings illustrate the inability of courts to agree upon a cogent and well-reasoned physical or reality-based explanation for their legal interpretations of rights associated with a standardized commodity or service. While the metering distinction may provide an easy handle for courts, it is a conclusion unsupported and at odds with the physical nature and flow of electricity. Plainly, the electricity consumed by the consumer is not necessarily the same electricity that a particular producer energizes or produces, places in commerce, controls, and sells. As one court recently noted:

More fundamentally, none of the utilities can show that, through the use of this equipment, the utility makes something new and different, whether it generates the electricity or buys the electricity from others. Though volts and amperes may change during the transmission and distribution, not every change is "manufacturing." ... The total amount of electric energy does not change very much from the point of generation to the points of use. Electric energy is sold by its producers and distributors in quantities of power over a time period, commonly expressed as "kilowatt—hours" or "megawatt-hours." A kilowatt of power can be 100 volts at 10 amperes, or it can be 1,000 volts at one ampere. The product is the same; only its measurements change. By either measure it is the same product, and nearly the same total amount of product. The essential character of electricity—the aggregation of subatomic particles that utilities can generate, transmit, distribute, measure and sell—is not changed by the equipment at issue here. Nothing is added and nothing is subtracted in the transmission and distribution process.²⁸⁰

explode resulting in a fire that destroyed the premises and its contents. *Id.* The plaintiff sued the defendant on negligence and strict liability theories. *Id.* The *Mancuso* court cited *Pierce* and *Ransome* in support of its holding that electricity is a product within the meaning of Restatement (Second) of Torts section 402A strict liability. *Id.* at 305-10. The court based its holding on language from *Pierce* that found that electricity is a commodity and language from *Ransome*, which found that electricity itself, in contemplation of the ordinary user, is a consumable product. *Id.* at 307.

280. *Utilicorp United, Inc. v. Dir. of Revenue*, 75 S.W.3d 725, 729 (Mo. 2001) (citations and footnote omitted). Petitioner utilities sought a sales tax exemption for certain equipment used in the transmission and distribution of electricity. *See id.* at 729. The utilities petitioned for review of the decision of the Missouri Administrative Commission in favor of respondent Missouri Director of Revenue. *See id.* at 725.

A change in voltage of the electricity occurs at the point of transformation, not at metering. Thus, metered electricity merely serves as a measure and method of charging the consumer for consumption. In actuality, electricity does not become a product by passing through a meter; rather it is merely measured and remains unchanged. Making a distinction that identical electricity somehow is transformed from a service to a good or product at the meter is wholly misplaced. The physical reality is at odds with the jurisprudence.

IV. FEDERAL TANGO: FERC STEPS AROUND THE LEGAL NATURE OF ELECTRICITY

Both FERC and several states have stumbled around a determination of whether electricity is a good or a service. These first steps have not always been convincing. However advanced, they do constitute precedent on this key issue.

A. General Principles and Conflict of Laws

FERC has exclusive jurisdiction over wholesale electricity transactions in interstate commerce.²⁸¹ By impliedly adopting the U.C.C. or applying U.C.C. principles without modification to seven adjudicated power transactions to date, the Commission may inadvertently be establishing that electricity is a good, thereby creating precedent for power contracts that will carry forward in a deregulated environment.²⁸² FERC adopted the U.C.C. rule uncritically without any analysis, and in some cases appears to have done so contrary to common sense.

Common threads evolve in Commission cases dealing with wholesale transactions across different energy media. Notably, the Commission has jurisdiction under the Natural Gas Act,²⁸³ as well as under the Federal Power Act,²⁸⁴ as each has been amended.

In electric power contract disputes subject to FERC's jurisdiction, the Commission first analyzes whether to exercise primary

281. See 16 U.S.C. § 824(a)-(b)(1) (2000).

282. See discussion *infra* Part IV.B.

283. See 16 U.S.C. § 824(a)-(b)(1).

284. See 15 U.S.C. § 717(a) (2000).

jurisdiction.²⁸⁵ In their discretion, the Commission generally considers:

(1) whether the Commission possesses some special expertise which makes the case peculiarly appropriate for Commission decision; (2) whether there is a need for uniformity of interpretation of the type of question raised by the dispute; and, (3) whether the case is important in relation to the regulatory responsibilities of the Commission.²⁸⁶

If the Commission has expertise over the issue, such as disputes over rates or costs, it will exert primary or concurrent jurisdiction.²⁸⁷

The Commission next makes a conflict of law determination comparing state law and general principles, usually based on *Pennzoil Co. v. FERC*, a Fifth Circuit case that ultimately applied the U.C.C. to a natural gas dispute.²⁸⁸ This becomes an exercise where the Commission looks to state law to see whether it has adopted Article 2 of the U.C.C. FERC posits that as "all states except Louisiana have adopted the U.C.C., variations between state law and general principles are likely to be few."²⁸⁹ In the absence of a conflict between federal general principles and state law, the Commission generally will claim to apply state law.²⁹⁰

When the Commission invariably applies, utilizes, or refers to the U.C.C. in a decision, it is purporting to apply state law. FERC is not bound (nor is it necessarily logical) to apply state law in its decisions. Rather, FERC typically applies federal law and creates a federal common law by its decisions. FERC adopts state U.C.C. principles by implication, without ever stating a rationale in any reported FERC decision for adopting *state* law to ground a *federal* decision. FERC thereby creates federal common law by uncritically and impliedly adopting state U.C.C. terms without modification. Since nearly uniform (U.C.C.) state law thereby becomes federal

285. See *Seminole Elec. Coop., Inc.*, 53 F.E.R.C. ¶ 61,026, at 61,101 (1990).

286. *Id.* (citing *Ark. La. Gas Co.*, 7 F.E.R.C. ¶ 61,175, at 61,322).

287. See *id.*

288. 789 F.2d 1128 (5th Cir. 1986). In *Pennzoil*, the Commission applied U.C.C. principles to gas rate contracts filed with the Commission. See *id.*

289. *Id.*

290. See *Cent. Ill. Pub. Serv. Co.*, 20 F.E.R.C. ¶ 61,043, at 61,091 (1982).

law, federal general principles will not diverge from state law when FERC makes such a comparison.

FERC, however, never analyzes the fundamental issue in any decision: whether electricity is a good or a service under either state law or the so-called federal general principles. Since natural gas is a good and FERC regulates gas, FERC reflexively regulates electricity as a good without comparing either state law on this matter—where electricity often is not deemed a good—or the true nature of electricity itself.

B. The Magnificent Seven: The Good, the Bad, and the Ugly

The seven FERC decisions that have applied the U.C.C. to electricity cases do so in a robotlike manner, with no analysis or eventual justification. For example, in *Commonwealth Electric Co. v. Boston Edison Co.*,²⁹¹ Boston Edison Company requested a rehearing of the Commission's order that required Boston Edison to refund Commonwealth Electric Company plant addition interest (PAI) expenses charged under their formula rate.²⁹²

FERC took official notice of the First Circuit's decision²⁹³ cited in Boston Edison's second rate supplement.²⁹⁴ The First Circuit initially explored whether it should give deference to the

291. 46 F.E.R.C. ¶ 61,253 (1989).

292. In *Commonwealth Electric Co. v. Boston Edison Co.*, the Commission granted the Commonwealth's request for summary judgment and found the following:

(1) that the Pilgrim Nuclear Generating Unit Sales Agreement (agreement) between Boston Edison and Commonwealth did not provide for collection of these charges; (2) that Boston Edison and Commonwealth through their course of performance since 1980 have not modified the agreement to provide for recovery of plant addition interest expenses; and (3) that the contractual statute of limitations barring relief in billing disputes not challenged within one year was invalid.

Id. at 61,756-57.

293. *Id.* at 61,759 (accepting *Boston Edison Co. v. FERC*, 856 F.2d 361 (1st Cir. 1988), under 18 C.F.R. § 385.508(d) (1988)). The First Circuit case involved a similar complaint by a different customer against Boston Edison who sought review of FERC's order requiring Boston Edison to refund PAI costs to thirteen municipal agencies. *Boston Edison Co.*, 856 F.2d at 362. Boston Edison argued to the First Circuit that FERC had misinterpreted the supply contracts and disregarded the contractual claims limitation period. *Id.* at 372.

294. See *Boston Edison Co.*, 46 F.E.R.C. at 61,757. FERC rejected Boston Edison's two late-filed supplements dated August 18, 1988 and October 12, 1988 because they were unauthorized to waive the thirty-day statutory time limit to file requests due to a "jurisdictional limitation" of section 313(a) of the Federal Power Act. *Id.*

Commission's decision,²⁹⁵ analyzed the Commission's choice of law, which ignored a choice of law provision in the contract,²⁹⁶ and agreed with FERC in granting summary relief because the parties did not originally intend to pay Boston Edison for PAI expenses.²⁹⁷ However, the First Circuit held that FERC erred in disregarding the agreement's claims limitation clause.²⁹⁸ When FERC initially accepted the contract for rate filing,²⁹⁹ it placed the claims limita-

295. *Boston Edison Co.*, 856 F.2d at 363. The First Circuit analyzed its standard of review. "Generally speaking, we have accorded deference to agency expertise in contract interpretation cases where the agency's interpretation 'has a reasonable basis in the contract terms, the [relevant] Act's policies and the Board's expertise'" *Id.* (citing *NLRB v. C.K. Smith & Co.*, 569 F.2d 162, 167 (1st Cir. 1977)).

When we scrutinize these agreements in light of the relevant principles of contract law, without ceding special deference to the agency's interpretation, our reading of them vis-a-vis the PAI point comports exactly with FERC's. For that reason, we need not decide today how much, if any, deference should be accorded to an agency's resolution of a "pure" question of contract law under less certain circumstances.

Id. at 364. In response to the commission's statement that agencies almost always "exercise some measure of expertise when interpreting contracts germane to their administrative fields," Boston Edison asserted *Texas Gas Transmission Corp. v. Shell Oil Co.*, where agency decisions based on pure questions of law may be reviewed de novo. *See id.* at 363; *Texas Gas Transmission Corp. v. Shell Oil Co.*, 363 U.S. 263, 268-70 (1960).

296. *Boston Edison Co.*, 856 F.2d at 364, 371. Boston Edison argued that the Commission erred by not citing Massachusetts case law, where paragraph D-5.2 of the contract stated that by mutual consent, Massachusetts law would govern state law questions of interpretation and performance. *Id.* at 365. The First Circuit found Boston Edison's argument unavailing because the Commission applied an equivalent standard to Massachusetts law. *Id.* at 367. Additionally, *Lucie v. Kleen-Leen, Inc.* stands for the proposition that, under the parol evidence rule, extrinsic evidence is inadmissible when introduced to "add to, detract from, or vary the terms of a written contract." 499 F.2d 220, 2210 (7th Cir. 1974) (per curiam).

297. *Boston Edison Co.*, 856 F.2d at 367. As the First Circuit stated:

Reviewing a Contract carefully crafted between sophisticated business entities, the Commission had no choice but to give effect to its plain meaning.... It follows inexorably, therefore, that FERC's rulings (1) finding that the plain and unambiguous language of the Contract foreclosed recovery of PAI, and (2) excluding extrinsic evidence on the point were, as a matter of law, unimpeachable.

Id. at 367-68.

298. *Id.* at 364, 371-374. FERC's original order refused to give effect to the agreement's claims limitation clause. *See Questor Pipeline Co.*, 43 F.E.R.C. ¶ 62,320 n.11 (1988). The First Circuit stated that "the clause in no way involved a usurpation of the commission's jurisdiction or an abridgment of its independent statutory responsibility." *Boston Electric Co.*, 856 F.3d at 374.

299. The Federal Power Act requires a "regulated energy seller" to file all of its rates and charges, and all contracts that affect or relate to the rates, charges, or services, with FERC.

tion clause under the protection of the filed rate³⁰⁰ and the *Mobile-Sierra* doctrines.³⁰¹ The First Circuit remanded for a correction of orders to exclude refunds barred by the limitations period.³⁰²

Course of performance also became a key element of the case. FERC applied the U.C.C. course of performance rule without ever analyzing, or expressly finding that (1) electricity was a good, (2) the U.C.C. applied, or (3) which state's version of the U.C.C. governed the case.

Course of performance evidence has more probative value under the U.C.C. than under the common law pertaining to services.³⁰³ Contrary to Boston Edison's argument,³⁰⁴ the Commission precluded extrinsic evidence, and held that evidence of course of performance should be viewed in light of the plain meaning of the agreement.³⁰⁵ Here FERC applied the U.C.C. citing to the model statute, which unless adopted by a particular state, has no legal effect, and did not even cite the Massachusetts version of the

See 16 U.S.C. § 824d) (2000). The parties in *Boston Edison Co.* set their rates by filing rate schedules with the Commission. See *Boston Edison Co.*, 856 F.2d at 371-72. The filed rates must be "just and reasonable," and unless challenged, they become legal rates. 16 U.S.C. § 824d(a). This is known as the "filed rate" doctrine. FERC may determine an initial rate or charge if the rates are unjust, unreasonable, preferential, or discriminatory, but cannot amend rates retrospectively. See 16 U.S.C. § 824e(a).

300. See *supra* note 299.

301. Boston Edison argued that by disregarding the parties' claims limitations clause the Commission had altered the contract because the clause was protected by the *Mobile-Sierra* doctrine. See *Boston Edison Co.*, 856 F.2d at 371. Derived from the paired decisions in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956) and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956), the *Mobile-Sierra* doctrine determined that a contract between parties governs the legality of a rate filing. Boston Edison argued that the claims limitation clause is part of the filed rate, the bargain struck by the parties, and therefore protected by the *Mobile-Sierra* doctrine. See *Boston Edison Co.*, 856 F.2d at 371.

302. See *Boston Edison Co.*, 856 F.2d at 372.

303. See discussion *supra* Part III.B.1.

304. In the order at hand, Boston Edison argued that the U.C.C. allowed the Commission to consider evidence of the parties' course of performance to modify written agreements. *Commonwealth Elec. Co.*, 46 F.E.R.C. ¶ 61,253, at 61,759. The fact that Commonwealth paid for the PAI expenses evidenced an intent to allow Boston Edison to recover those charges. See *id.*

305. *Id.* n.15. In a footnote the Commission stated that "[e]ven assuming *arguendo* that the parties' course of performance differs from the plain meaning of the written agreement, in our analysis we would still consider the written agreement. Boston Edison did not present convincing evidence that the parties agreed to amend or repudiate the specific language of the original written agreement. *Id.* at 61,759.

U.C.C.³⁰⁶ FERC granted Commonwealth summary judgment and refunded unauthorized charges for plant expenses.³⁰⁷

A second time, FERC mechanically applied U.C.C. course of performance rules regarding electricity sales. *Village of Jackson Center* involved an Ohio contract dispute³⁰⁸ between Dayton Power & Light Company (DPL)³⁰⁹ and municipal utilities (the Municipals) over rate schedules and costs of purchased power.³¹⁰ The judge sought to determine whether the mutual intent of the parties was to include purchased power costs in addition to generation costs for regulation service.³¹¹ Despite the Municipals' assertion,³¹² the judge applied the U.C.C. to find that the express language of the

306. *See id.* at 61,759 n.15.

307. *See id.*

308. 91 F.E.R.C. ¶ 63,013, at 65,123, 65,124 (2000). In 1994 the parties entered into a Power Service Agreement (PSA) with five different rate schedules: firm power, short-term power, firm transmission service, short-term transmission service, and regulation service. *Id.* A conflict developed over the fifth rate schedule when Dayton Power & Light Co. allegedly overcharged for regulation service during the summers of 1998 and 1999. *Id.* at 65,124. Some of the municipal utilities party to the contract either paid what they thought was a fair fee for regulation service or did not pay at all. *Id.*

309. *Id.* at 65,123. DPL is a public utility in Ohio that serves residential, commercial, industrial, and government customers. DPL serves eleven municipal corporations in Ohio including the villages of Jackson Center, Versailles, Arcanum, Eldorado, Lakeview, Mendon, Minster, New Bremen, Waynesfield, and Yellow Springs, Ohio, and Tipp City, Ohio. *Id.*

310. *Id.* at 65,124. The Municipals filed the original complaint against DPL on December 8, 1999, alleging that DPL had breached the PSA's pricing provisions. DPL filed a breach of contract suit on December 10, 1999 in Ohio state court for failure to pay for services. *See Village of Jackson Ctr.*, 90 F.E.R.C. ¶ 61,287, at 61,756 (2000). In the Commission's Order Establishing Hearing Procedures and Regulatory Fairness Act Notice, the Commission found the corresponding PSA sections sufficiently ambiguous to deny the parties' request for summary disposition, and set an evidentiary hearing to determine the contract interpretation before an administrative law judge. *See id.* at 61,758.

311. *See Village of Jackson Ctr.*, 91 F.E.R.C. at 65,131. Neither party challenged the administrative law judge's jurisdiction in presiding over the contract dispute over the interpretation of rate schedules for wholesale transmissions. *Id.* at 65,124. The parties framed the issue as follows: "Does Rate Schedule E of the PSA between DPL and the Municipals permit DPL to include the cost of purchased power in calculating its charges for Regulation Service during off-peak periods and during on-peak periods within the 10% or 1 MW threshold?" *Id.*

312. *Id.* at 65,126. The Municipals argued that the term "out of pocket" expenses in the PSA's Rate Schedule E, sections 2.3 and 2.2, for Regulation Service only included generation costs, not purchased power expenses. *See id.*

contract,³¹³ industry practice,³¹⁴ and extrinsic evidence of the parties' course of conduct during negotiations³¹⁵ supported DPL's position.³¹⁶ The parties contractually agreed on a pricing structure that would let DPL recover the difference in costs between generated and purchased energy.³¹⁷

On the factual issue, once FERC applied the U.C.C. rule, the Municipals argued that their agents' conduct³¹⁸ did not establish a course of conduct, rather that "a course of performance between two individuals who were not involved in the negotiations ... is not a course of performance at all."³¹⁹ In response, the FERC administrative law judge cited the U.C.C. to hold that "course of conduct" refers to the behavior of the *parties* to the agreement, not to the individual negotiators.³²⁰ Notably, the judge again cited the unenacted model form of the U.C.C. as general contract law, rather

313. *Id.* at 65,129. Schedule B stipulated that out of pocket costs include purchase power costs. *See id.* Sections 2.2 and 2.3 of Schedule E reference section 2.311 of Rate Schedule B which includes out of pocket expenses. *See id.*

314. *Id.* at 65,128 n.7. The Commission's Operation and Maintenance Expense Chart of Accounts, Uniform System of Accounts, 18 C.F.R. § 500 *et seq.* (2003), provides that power production expenses include both generated and purchased power. *Village of Jackson Ctr.*, 91 F.E.R.C. at 65,127.

315. *Village of Jackson Ctr.*, 91 F.E.R.C. at 65,131. The Rate Schedules were negotiated by energy specialists. *See id.* During the original negotiations, the parties agreed to a Regulation Service rate whereby DPL would recover out-of-pocket costs plus ten percent. *See id.* FERC held this amounted to a course of performance under the U.C.C. *See id.*

316. *Id.* at 65,128. DPL argued that Rate Schedule E referred to rate schedule B for short-term energy charges. *See id.* at 65,131. Purchased power costs were included even though they were not listed specifically in Schedule B's list of costs. *See id.* The Municipals acquiesced to purchased power costs by paying on the contract for one year. *See id.* This amounted to a course of performance under the U.C.C. *See id.*

317. *Id.* at 65,133. Since the Municipals were not in favor of being charged market-based rates for purchased power costs, they set a limit of \$100 per MW. *See id.* at 65,133 n.18. Likewise, if the price purchased power exceeded the limit, DPL would have shouldered the costs. *See id.*

318. *Id.* at 65,132. In September of 1998 the Municipals requested their agent, Mr. Migliore, to investigate high charges from DPL in June and July. *See id.* Mr. Migliore and Mr. Crusey, the DPL representative, discussed and specifically referenced purchased power prices and the fact that regulation energy charges included purchase power costs. *See id.* As such, the Municipals had constructive notice of any information conveyed to Mr. Migliore. *See id.*

319. *Id.* (quoting Municipals' Brief at 38).

320. *Id.* at 65,132 (citing U.C.C. § 2-202, cmt. 2 (1989)). The parties to the PSAs were DPL and the various Municipals who were responsible for performing the contract, not two individuals in the organizations. *See id.* The two agents, however, were responsible for administering the contract and establishing a course of conduct. *See id.* at 65,132.

than specific state U.C.C. provisions, to support the validity of the contract provisions.³²¹

The third FERC case to apply the U.C.C. backhandedly to an electricity dispute applied the U.C.C. to open price terms, where the U.C.C. rule differs significantly from the common law applied to service contracts. In *Central Illinois Public Service Company* (CIPSCO), the Commission applied section 2-305 of the U.C.C. to determine whether a contract between CIPSCO, and its wholesale customers was an open price term contract.³²² CIPSCO applied for an increase in wholesale rates with the Commission based on estimated costs.³²³ The cities of Flora and Greenup in Illinois (the Cities) filed a motion with the Commission to reject CIPSCO's rate increase and to request a refund for the amount of increased revenue they had paid under the modified rates.³²⁴ Under the parties' agreement, the rates were established for the first ten years of their twenty-year contract, and the parties would mutually agree on the rates and charges for the second ten years.³²⁵ CIPSCO argued that by paying for the rate increases, the Cities acquiesced to their successive rate filings with the Commission and subsequently modified the contract.³²⁶

321. *Id.* at 65,132-33.

322. Cent. Ill. Pub. Serv. Co., 20 F.E.R.C. ¶61,043, at 61,089 (1982).

323. *Id.* at 61,082. CIPSCO had three classifications for its wholesale customers: W-1 for Cooperatives, W-2 for Municipals, and W-3 for Partial Requirements Municipals. *Id.* Rates for each of the classifications were increased; however, the rate for W-1 was increased to a lesser extent. *Id.* at 61,089. The proposed rate for W-1 Cooperatives was agreed to by its customers. *See id.* FERC suspended W-2 and W-3 rates until after hearings to address the issue of whether the rates were just and reasonable, and whether CIPSCO had discriminated against these two groups. *See id.* The cities alleged that CIPSCO had held secret negotiations that resulted in a "sweetheart" deal with the cooperatives, and that the discriminatory rates would affect the Cities' ability to compete with the cooperatives. *Id.* at 61,084. In the initial decision, the presiding Administrative Law Judge ordered CIPSCO to refund retroactively the difference between W-1 rates and the discriminatory W-2 and W-3 rates. Cent. Ill. Pub. Serv. Co., 14 F.E.R.C. ¶ 63,047, at 65,155 (1981).

324. *See Cent. Ill. Pub. Serv. Co.*, 20 F.E.R.C. at 61,083. The cities filed the Motion to Reject on January 22, 1982. *Id.* at 61,083. The cities of Casey and Newton, Illinois filed a similar complaint against CIPSCO on April 27, 1982 in Docket No. EL82-15-000. *Id.* The Commission consolidated the complaints and considered the new complaint as a motion.

325. *Id.*

326. *Id.* CIPSCO did not dispute that it had not complied with the terms of the contract. *See id.* CIPSCO's answer to the Casey-Newton complaint on May 21, 1982 raised a new defense that the contracts were indefinite and therefore unenforceable, or constituted "open price term" contracts which required a reasonable price. *See id.* at 61,091.

The Commission did not address the issue of whether it should decide the contract dispute or defer to a state court, but rather relied on the fact that the conflict was based on wholesale rates, a matter wholly under its jurisdiction under the Federal Power Act.³²⁷ The Commission concluded that the contracts were open price term contracts as defined by the U.C.C. and were therefore valid and enforceable.³²⁸ To support its decision to apply the Code instead of “traditional” state law to the contract dispute, the Commission cited *Pennzoil*, where the Fifth Circuit affirmed the Commission’s application of “general principles of contract law” as within its jurisdiction.³²⁹ The judge stated:

Consistent with *Pennzoil*, we believe the U.C.C. represents the prevailing “general principles of contract law,” and that it is proper to apply the principles set forth in the U.C.C. in ruling on the contracts here in dispute. Since Illinois has adopted the U.C.C., including section 2-305 in unmodified form, there is no divergence between state law and general principles.³³⁰

The Commission will follow state law when state law and “general principles” differ.³³¹ In every state except Louisiana, however, the state’s U.C.C. generally is consistent with the model U.C.C.³³² The Commission concluded that the sale of electrical energy is directly analogous to the sale of natural gas, and therefore is within the purview of section 2-105(5) of the U.C.C.:

327. *Id.* at 61,091-92 (quoting *Pennzoil Co. v. FERC*, 645 F.2d 360 (5th Cir. 1981)). The court held that in the absence of significant conflict between federal interests and the use of state law in the interpretation of contracts, “the appropriate contract law to apply is the law that would govern the parties['] dealings were there no regulation at all of the contract’s subject matter.” *Id.* at 61,091 (quoting *Pennzoil Co.*, 645 F.2d at 387).

328. *Id.* at 61,091; see U.C.C. § 2-305 (1989). The U.C.C., which allows parties to conclude a contract without settling the price if they so intend, modified “traditional” common law that considered price “agreements to agree” typically unenforceable and indefinite. If the parties fail to agree on the price, the U.C.C. sets the “reasonable price” at the time of delivery. U.C.C. § 2-305.

329. *Cent. Ill. Pub. Serv. Co.*, 20 F.E.R.C. at 61,092 (citing *Pennzoil Co.*, 645 F.2d at 360). Notably, the court in *Pennzoil* had placed the burden on the parties “to inform [the Commission] if the state law is ... different from ... general principles.” *Pennzoil Co.*, 645 F.2d at 387.

330. *Cent. Ill. Pub. Serv. Co.*, 20 F.E.R.C. at 61,092.

331. *Id.* at 61,092.

332. See *supra* note 289 and accompanying text.

"Since the Uniform Commercial Code applies to natural gas sales as the sale of goods ... and all states except Louisiana have adopted the U.C.C., variations between state law and general principles are likely to be few."³³³

The reach of the U.C.C. rule was dispositive: Even though the rates were not specified for the second ten years of the contract, the Commission held that the contracts were not indefinite because the parties intended to conclude the contracts and be bound.³³⁴ The prices were intended to be mutually agreed upon by the parties, subject to the Commission's approval.³³⁵ The Commission ordered CIPSCO to refund all excess rates collected prior to the date of the order, and ordered the Cities to pay the W-2 rate.³³⁶

Pennzoil was influential again at FERC regarding the parol evidence rule, where the U.C.C. rule differs significantly from the common law rule.³³⁷ In *Arkansas Power & Light Company* (AP&L),³³⁸ the Commission granted reconsideration of its order that had denied the Missouri Cities' request to reject AP&L's rate filing with the Commission.³³⁹ Over objections from the Missouri Cities,³⁴⁰ the Commission interpreted the contract between the Missouri Cities and AP&L to permit unilateral rate changes.³⁴¹

As the issue concerned AP&L's wholesale customers, the parties did not contest the Commission's jurisdiction over the rate-related contract dispute.³⁴² In considering this application for a rehearing, the Commission explored the *Pennzoil* decision that impliedly upheld the Commission's jurisdiction in deciding *Mobile-Sierra*-like

333. *Cent. Ill. Pub. Serv. Co.*, 20 F.E.R.C. at 61,092.

334. *See id.*

335. *See id.*

336. *Id.* at 61,094.

337. *See discussion supra* Part III.A.2.

338. 20 F.E.R.C. ¶ 61,013, at 61,033 (1982).

339. *See id.* The Commission denied the Missouri Cities' motion to reject AP&L's rate filing. *See id.* On May 5, 1982, the Commission denied the Missouri Cities' motion dated April 5, 1982 where the Missouri Cities set out four requests for relief and asked the Commission to grant a stay of the March 3, 1982 order "pending a hearing regarding the parties intent with respect to the *Mobile-Sierra* contract question." *See id.* at 61,034.

340. *Id.* at 61,034. The Missouri Cities disagreed with the Commission's interpretation of the contract language to allow AP&L to file revised service rates. *See id.*

341. *Id.* The Commission affirmed its view that the plain language of the contract permitted unilateral rate changes under section 205 of the Federal Power Act. *See id.*

342. *See id.*

contract disputes.³⁴³ In addition to reviewing the plain language of the agreement, the Missouri Cities urged the Commission to consider extrinsic evidence of the parties' intent in relation to the contract provisions.³⁴⁴

To support their proposition, the Missouri Cities cited *Pennzoil*,³⁴⁵ wherein the court cited official comments to sections 2-205 and 2-202 of the U.C.C., and allowed extrinsic evidence to explain or interpret the terms of the contract even though the contract was, on its face, unambiguous.³⁴⁶ *Pennzoil* not only cites to the U.C.C., but to the official comments of the U.C.C.³⁴⁷ The Commission in *Arkansas Power & Light Co.* did not cite to Missouri or Arkansas state law or make a state-law determination.³⁴⁸ In applying federal law, the Commission applied precedent that specifically cited to the unenacted model version of the U.C.C., which nowhere has the effect of law.³⁴⁹

The Commission allowed the Missouri Cities to present relevant extrinsic evidence to explain or interpret the contract terms.³⁵⁰ However, the Commission did not proceed through the steps required by U.C.C. section 2-202 to make this determination under the Code; it merely announced a conclusion.³⁵¹ The U.C.C. requires a detailed analysis of factors to determine which type of parol evidence may be introduced.³⁵²

In *Golden Spread Electric Cooperative*,³⁵³ the Commission applied the U.C.C. to determine assignment of contract rights. The

343. *See id.*

344. *See id.*

345. *See id.* (discussing *Pennzoil Co. v. FERC*, 645 F.2d 360, 388 (5th Cir. 1981)); *see also*, *Lucie v. Kleen-Leen, Inc.*, 499 F.2d 220, 221 (7th Cir. 1974).

346. *Ark. Power & Light Co.*, 20 F.E.R.C. at 61,034 (citing *Pennzoil Co.*, 645 F.2d at 388). In *Pennzoil*, the parol evidence rule did not preclude the introduction of extrinsic evidence of the commercial and regulatory context of the contract to show the parties' intentions, even where the contract language was plain and unambiguous. *Pennzoil Co.*, 645 F.2d at 388.

347. *See id.*

348. *See Ark. Power & Light Co.*, 20 F.E.R.C. at 61,034.

349. *See id.* The Commission ordered a reconsideration of its order dated March 3, 1982, pending a decision on the issue of the Missouri Cities' and AP&L's intent regarding the terms of their contract, to determine whether the contract allowed unilateral rate changes. *Id.* at 61,034, 61,035.

350. *Id.* at 61,034.

351. *See id.*

352. *See* U.C.C. § 2-202 (1989).

353. 40 F.E.R.C. ¶ 61,348 (1987).

assignment of property rights does not significantly vary between the U.C.C. and general common law/services jurisprudence, as with legal questions involved in the prior cases. Southwestern Public Service Company (SPS) filed a request for a rehearing of the Commission's order that upheld the validity of a contract assignment to Golden Spread Electric Cooperative (Golden Spread) from several of its member cooperatives (the cooperatives).³⁵⁴ The cooperatives agreed to purchase from Golden Spread and assigned to Golden Spread their full requirements agreements with SPS.³⁵⁵ In the June 18, 1987 order, the Commission rejected SPS's challenge to its jurisdiction.³⁵⁶

The Commission has jurisdiction to decide issues necessary to their regulatory authority, albeit incidental or "not directly within the scope of our regulatory authority."³⁵⁷ Despite objection from

354. *See id.* at 62,045. In the previous order, Golden Spread submitted its full requirements agreements for sales to to the cooperatives. *See* Golden Spread Elec. Coop., Inc., 39 F.E.R.C. ¶ 61,322 (1987). The Commission accepted the agreement for filing whereby Golden Spread agreed to sell to the cooperatives who, in turn, assigned to Golden Spread their full requirements agreements for purchases from SPS. *See id.* at 62,021. SPS would sell to Golden Spread, which would sell to the cooperatives. *See id.*

355. *See id.* SPS originally filed with the Commission its full requirements agreements with the cooperatives, as required by the Federal Power Act, 16 U.S.C. § 824d (2000). *See Golden Spread Elec. Coop., Inc.*, 39 F.E.R.C. at 62,021.

356. *See Golden Spread Elec. Coop., Inc.* 40 F.E.R.C. at 62,045. SPS argued that Golden Spread was not a utility involved in interstate sale of electricity. *See id.* As Golden Spread had no electrical facilities to sell electricity, SPS argued that Golden Spread was not a public utility under the Commission's jurisdiction pursuant to sections 201(b)(1) and (e) of the Federal Power Act. *See id.*; 16 U.S.C. §§ 824(b)(1), (e) (2000). The Commission held that Golden Spread's facilities would be its "corporate organization, contracts, accounts, and records when those facilities are used in the sale of electricity." *Golden Spread Elec. Coop., Inc.*, 39 F.E.R.C. at 62,022. In the later order denying SPS's request for a rehearing, the Commission asserted the following conclusions:

We hold (1) that we have jurisdiction to decide whether the assignments to Golden Spread were valid, (2) that we properly asserted jurisdiction in this case despite the concurrent jurisdiction of the Texas courts, (3) that we properly applied Texas law in upholding the validity of the assignments, and (4) that we properly decided the assignment issue without a hearing.

Golden Spread Elec. Coop., Inc., 40 F.E.R.C. at 62,046.

357. *Golden Spread Elec. Coop., Inc.*, 40 F.E.R.C. at 62,046. Otherwise, the Commission would not have been able to exercise its authority under section 205 of the Federal Power Act. *See* 16 U.S.C. § 824d (2000). The Commission cites *Pennzoil Co. v. FERC*, 645 F.2d 360, 387 (5th Cir. 1981), where the Fifth Circuit upheld the Commission's concurrent jurisdiction with state and federal courts over contract disputes that fall under the Natural Gas Act, 15 U.S.C. § 717 (2000). The Commission also cited *Zachary v. FERC*, 621 F.2d 155, 158 (5th Cir. 1980), where the Fifth Circuit held that the Commission can assert jurisdiction under the

SPS³⁵⁸ and Golden Spread's assertion that the Commission had exclusive jurisdiction over the assignment,³⁵⁹ the Commission asserted concurrent jurisdiction over the assignment issue.³⁶⁰

Even though the underlying contracts were contracts for service by a jurisdictional utility (SPS) and within the Commission's jurisdiction, FERC somehow applied the U.C.C., which pertains only to goods.³⁶¹ The Commission found no controlling federal

Natural Gas Act over even an incidental contract issue if it is necessary to a ratemaking and policy decision. *See Golden Spread Elec. Coop., Inc.*, 40 F.E.R.C. at 62,046.

358. *See Golden Spread Elec. Coop., Inc.*, 40 F.E.R.C. at 62,045. SPS contended that the assignments were invalid and that the Commission had no jurisdiction over the assignments. *See id.* SPS cited the Commission's three-part "Arkla" test from *Arkansas Louisiana Gas Company v. Hall*, 7 F.E.R.C. ¶ 61,175, at 61,322 (1979), to show that the Commission should not assert jurisdiction. *See Golden Spread Elec. Coop., Inc.*, 40 F.E.R.C. at 62,045:

Whether the Commission should assert jurisdiction over contractual issues otherwise litigable in state courts, depends, we think, on three factors. Those factors are: (1) whether the Commission possesses some special expertise which makes the case peculiarly appropriate for Commission decision; (2) whether there is a need for uniformity of interpretation of the type of question raised by the dispute; and, (3) whether the case is important in relation to the regulatory responsibilities of the Commission.

Id. (quoting *Ark. La. Gas Co.*, 7 F.E.R.C. at 61,322). SPS argued that even if the Commission had jurisdiction, it should decline jurisdiction in deference to state law. *See id.*

359. *See Golden Spread Elec. Coop., Inc.*, 40 F.E.R.C. at 62,046. Alternatively, "Golden Spread contend[ed] that the Commission has exclusive jurisdiction over the assignment issue because the full requirements agreements are jurisdictional contracts and because the issue affects jurisdictional rates." *Id.* Golden Spread relied on *Nantahala Power & Light Co. v. Thornburg*, 476 U.S. 953 (1986), "in which the Supreme Court held that the Commission has exclusive jurisdiction over questions affecting wholesale electric rates." *Golden Spread Elec. Coop., Inc.*, 40 F.E.R.C. at 62,046. Even if the Commission did not have exclusive jurisdiction, the Commission could assert jurisdiction under the "Arkla" test. *See supra* note 358.

360. *Golden Spread Elec. Coop., Inc.*, 40 F.E.R.C. at 62,047.

Resolution of the assignment issue is necessary to the exercise of our regulatory authority because, if we did not decide the assignment issue, it would be unclear whether we could assert jurisdiction over Golden Spread. Only if the assignments were valid could we assert jurisdiction, because without the assigned agreements Golden Spread would not qualify as a public utility within the meaning of the Federal Power Act Thus, without deciding the assignment issue, we would have been unable to exercise our responsibilities under section 205 of the Federal Power Act.

Id. at 62,046-47 (citations omitted). The Commission did not attempt to assert exclusive jurisdiction as under *Nantahala*, but rather relied on concurrent jurisdiction under *Pennzoil* and *Zachary*. *See id.*

361. *See id.* at 62,047. The Commission has authority to regulate the terms and conditions of electric rates and to determine that the assignment issue was "important in relation to the regulatory responsibilities of the Commission." *Id.* at 62,045 (quoting *Ark. La. Gas Co.*, 7 F.E.R.C. at 61,322). In support of its position, the Commission also held that to suspend its

interest against applying "established law" to the assignment issue,³⁶² which it concluded without analysis was Texas' version of U.C.C. section 2-210,³⁶³ consistent with its past practice of addressing contract law questions as necessary.³⁶⁴ Despite objection from SPS,³⁶⁵ the Commission held that the assignment of the cooperative's full requirements agreements with SPS were valid under both the U.C.C. analysis and Texas law.³⁶⁶ With respect to the assignment of contract rights, no significant substantive differences exist between the U.C.C. and general common law provisions, unlike the two prior FERC cases.

C. The Impossible Dream: FERC Applies the U.C.C. to Services

To underscore the inapposite reflexes of FERC jurisprudence, quite oddly, FERC even applied the U.C.C. to decide a contract issue involving transmission *service*, rather than sale of the electricity itself. Transmission service is typically understood to be

decision out of deference to a Texas court decision would violate section 205 of the Federal Power Act, which required the Commission to decide Golden Spread's rate filing within sixty days. *See id.* at 62,047 (noting the Commission's responsibilities under 16 U.S.C. § 824d (1982)).

362. *Id.* at 62,047 (citing *Pennzoil Co. v. FERC*, 645 F.2d at 360, 387) ("[T]he appropriate law for the Commission to apply to a contract issue is, in the absence of significant conflict between federal interests and the application of state law, the law that would apply if the subject matter of the contract were unregulated.").

363. *See id.* "Unless otherwise agreed, all rights of either seller or buyer can be assigned except where the assignment would materially change the duty of the other party, or increase materially the burden or risk imposed on him by his contract, or impair materially his chance of obtaining return performance." *Id.* (quoting TEX. BUS. & COM. CODE ANN. § 2.210 (Vernon 1968)).

364. *See id.* at 62,047 (citing Cent. Ill. Pub. Serv. Co., 20 F.E.R.C. ¶ 61,043, at 61,091 (1982) (applying section 2-305 of the U.C.C. to a contract dispute)).

365. *See id.* at 62,045. SPS had argued that under Texas law, contracts involving extension of credit and long-standing personal relationships, as between SPS and the cooperatives, were "exceptions to the general rule that contracts are assignable." *Id.* at 62,045. SPS sought a factual determination of whether the parties intended the agreement to be assignable and whether Golden Spread would be able to perform as the cooperatives performed prior to the assignment. *See id.* at 62,045-46.

366. *Id.* at 62,048. The Commission held that the assignments were valid under both the U.C.C. analysis and the analysis applied by the Texas courts. *See id.* The Commission further held that full requirements agreements do not prohibit assignments and the assignment would not materially alter SPS's position. *See id.* The Commission ordered that SPS would have the same obligation to provide the same service to Golden Spread as it had for the cooperatives. *Id.*

a rate, terms for use of a line, and the capacity to move power. This is akin to a rental or use charge, or a fee for a transportation service.

In *Southern Minnesota Municipal Power Agency (SMMPA) v. Northern States Power Co. (NSP)*,³⁶⁷ SMMPA³⁶⁸ filed a complaint alleging that NSP³⁶⁹ had adopted new contract interpretations and altered long-standing practices in relation to their three transmission contracts.³⁷⁰ The Commission, finding jurisdiction over the wholesale sales issue under the Federal Power Act, was required to decide four areas of dispute, one of which was the correct transmission losses under the three agreements.³⁷¹ The Commission agreed that both parties were required to use the level

367. 73 F.E.R.C. ¶ 61,350 (1995). An administrative law judge heard the proceedings in two phases and issued an Initial Decision on Phase II on November 12, 1992. *See* N. States Power Co., 61 F.E.R.C. ¶ 63,010 (1992). SMMPA also sought a declaration that NSP would have to comply with the Commission's filing requirements as stated in section 205(d) of the Federal Power Act, 16 U.S.C. § 824d(d) (1994), before changing its schedule of charges. Docket No. EL 91-43-000 (June 26, 1991). *See* N. States Power Co., 61 F.E.R.C. at 62,063.

368. "SMMPA is a municipal corporation ... of Minnesota, organized in 1977 for the purpose of supplying electric power to its members. SMMPA consists of 18 member municipalities, each of which owns and operates an electric utility system in Minnesota." N. States Power Co., 73 F.E.R.C. at 62,064.

369. "NSP is a public utility ... that sells power and energy and operates a transmission system in parts of Minnesota, North Dakota and South Dakota." *Id.* NSP delivered power to SMMPA under three contractual agreements. *Id.* at 62,063.

370. *Id.* at 62,063, 62,065. FERC described the three contracts as follows:

On November 18, 1981, NSP and SMMPA entered into a Shared Transmission System Agreement (STS Agreement), which provid[ed] for the use of a shared transmission system (STS).... On April 27, 1982, NSP and SMMPA entered into a second agreement, namely the SMMPA Outlet Agreement, which require[d] NSP to transmit a portion of SMMPA's ... power On December 22, 1982, NSP and UMMPA entered into a transmission agreement (UMMPA Outlet Agreement), under which NSP [was] required NSP to transmit [a portion of UMMPA's share of output] to NSP's interconnections

Id.

371. *Id.* The Commission explained that:

The principal issues in dispute concern: (1) whether NSP is contractually obligated to honor SMMPA's schedules of power deliveries to other control areas; (2) whether SMMPA is entitled to operate, and NSP is required to deliver power to, a control area at Rochester; (3) what information, if any, should SMMPA and NSP be required to provide to each other so that each may be sure that the provisions of the three transmission agreements are being followed by the other party; and (4) what are the correct transmission losses under the three agreements.

Id. Neither party argued that the Commission was not the proper forum but recognized that under the Federal Power Act the Commission can hear cases involving rate issues. *See id.*

of losses mutually agreed upon³⁷² and that SMMPA³⁷³ was contractually proscribed from unilaterally revising the level of losses.³⁷⁴ The Commission sought to establish a reasonable loss factor for the STS Agreement³⁷⁵ since one of the sections was sufficiently ambiguous.³⁷⁶

FERC found that because both parties had agreed to use a loss factor of 3% from November 1982 until May 1, 1986, contrary to their STS contract provision,³⁷⁷ their actions constituted a "course of performance" that modified the contract provision.³⁷⁸ The Commission applied the U.C.C.'s definition of "course of performance" to the parties' conduct, quoted the unenacted model version of the U.C.C., and cited the corresponding Minnesota provision.³⁷⁹

372. *Id.* at 62,075-81. The initial loss factors for the STS Agreement, and the SMMPA and UMPMA Outlet Agreements were 7%, 3%, and 1.2%, respectively. *Id.* at 62,081.

373. NSP argued that SMMPA had breached its contractual agreements by unilaterally adopting its own loss amounts. *Id.* at 62,076. After May 1, 1986, the contract provided that the parties intended to mutually agree on loss factors that reflected actual losses. *Id.* at 62,080. However, on August 1, 1990 SMMPA unilaterally lowered the level of losses from 4.2% to 3% under the STS agreement, and from 3% to 1.2% under the SMMPA Outlet Agreement. *Id.* at 62,066.

374. *Id.* at 62,080. NSP also argued that the *Mobile-Sierra* doctrine precluded the Commission from modifying the loss factors established by their contracts, unless public interest demanded otherwise, and because neither party argued that the factors were unjust and unreasonable. *Id.* at 62,076, 62,082. Thus, an attempt to change the loss factors retroactively would violate the filed rate doctrine because the loss factors are rate provisions that can only be changed under section 206 of the Federal Power Act. *See id.* at 62,079.

375. *Id.* In its hearing order, the Commission established August 25, 1991 as a refund date from which to determine the justness and reasonableness of the loss factors. *Id.* at 62,084. "Under section 206 of the FPA, 16 U.S.C. § 824e (1994), absent dilatory behavior by NSP, which is not the case, we may change the loss factors only during the 15-month refund period and prospectively." *Id.* at 62,084 n.43.

376. *Id.* at 62,077. Section 6.04 of the STS agreement created a 7% loss factor unless and until the Coordinating Committee changed it. *See id.* However, the contract also stated that "actual transmission losses" should be used, "which both parties agree have been well below 7% for many years." *Id.*

377. Section 6.04 of the STS Agreement stipulated initial transmission losses would be 7%. *See id.* at 62,077. The record, however, indicated that both parties agreed to use a 3% factor from the commencement of STS service in November 1982 until May 1, 1986. *See id.* The STS Agreement also required a Coordinating Committee to approve and establish level of losses for the STS Agreement periodically. *Id.*

378. *Id.* at 62,080-81. The Commission rejected NSP's argument that the losses should remain at 7% from 1982 because both parties mutually agreed on the 3% losses for three and one-half years. *See id.*

379. *Id.* at 62,080; *see also* MINN. STAT. § 336.2-208(1)(2002); U.C.C. § 2-208(1) (1989). The Commission determined that both parties' "course of performance" modified the "initial" loss factor of 7% initially stated in the contract. *N. States Power Co.*, 73 F.E.R.C. at 62,080. In a

It thus applied the U.C.C. to a contract for transmission services, utilizing a provision where the U.C.C. diverges from the common-law rule for services.³⁸⁰

The Commission also determined that the STS transmission contract was analogous to an "agreement to agree" where the parties agreed to conclude a contract even if a price, or loss factor, was not determined, and applied the U.C.C. to govern such matters.³⁸¹ Here again, the application of the U.C.C. rule changed the outcome: An "agreement to agree" is enforceable under the U.C.C., but not typically enforceable in a services contract. Moreover, the application of the U.C.C. allowed the court to insert "reasonable" prices even where not settled by the parties. To determine a reasonable rate on which the parties intended to agree, the Commission once again quoted from the unenacted model version of the U.C.C. and cited the relevant Minnesota provision.³⁸² The contract was enforceable under the U.C.C., but perhaps would not have been enforceable under common law.³⁸³

footnote the Commission referred to section 2-208(1) of the U.C.C.:

Where the contract for sale involves repeated occasions for performance by either party with knowledge of the nature of the performance and opportunity for objection to it by the other, any course of performance accepted or acquiesced in without objection shall be relevant to determine the meaning of the agreement.... The U.C.C., including this provision, has been adopted by Minnesota.

Id. at 62,080 n.37 (citing MINN. STAT. § 336.2-208(1)).

380. During the periods that the parties did not agree, the loss factor would remain at the level that would be determined by their course of performance. *Id.* at 62,080. After May 1, 1986 and until 1992 the parties were unable to reach an agreement as to the proper level of losses under the STS agreement, and the level of losses was changed on two different occasions. *See id.* at 62,066. On May 1, 1986, the parties used losses of 4.5% and on January 1, 1989, the parties used losses of 4.2%. *See id.* The new loss factors were used without the STS Coordinating Committee's approval. *See id.*

381. *See id.* at 62,080. "In this context, the contract in question can be considered analogous to an 'agreement to agree' and is cognizable under section 2-305 of U.C.C.. *Id.* at 62,080 n.39; *see also* MINN. STAT. § 336.2-305. FERC quoted Minnesota's U.C.C. section 2-305, which provides:

(1) The parties if they so intend can conclude a contract for sale even though the price is not settled. In such a case the price is a reasonable price at the time of delivery if ... (b) the price is left to be agreed by the parties and they fail to agree

MINN. STAT. § 336.2-305; *see N. States Power Co.*, 73 F.E.R.C. at 62,080 n.39 (quoting MINN. STAT. § 336.2-305).

382. *See N. States Power Co.*, 73 F.E.R.C. at 62,080 n.39.

383. *See id.* Although the Commission did not go through the same U.C.C. analysis for the

FERC also has employed the U.C.C. to invoke "trade usage" in the interpretation of the performance of the parties. *Seminole Electric Cooperative, Inc. v. Florida Power & Light* (FPL) involved a contract dispute over indirect costs listed in the parties' 1982 Interconnection Agreement.³⁸⁴ The Commission interpreted the agreement between the parties wherein Seminole reimbursed FPL for operation and maintenance expenses for use of facilities required by the parties' interconnection.³⁸⁵ The Commission considered whether they should exercise primary jurisdiction³⁸⁶ or require the parties to seek judicial resolution of the contractual dispute.³⁸⁷ The Commission exercised primary jurisdiction because this was a dispute over ratemaking terms, the outcome depended on the construction of the O&M provision, and the indirect costs were a special expertise of the Commission.³⁸⁸ Neither party challenged the Commission's jurisdiction.

Outlet Agreements, its decisions were similar, and also based on its authority to decide the rate factors. *See id.* The Commission fixed a loss factor of 2.3% for the STS, SMMPA, and UMPMA Outlet Agreements effective as of the date of the order. *See id.* The Commission applied the 2.3% loss factor for the STS Agreement during the fifteen-month refund period from August 25, 1991 through November 24, 1992. *See id.* at 62,080. The loss factor would then revert to the 3% contract loss factor until the date of the order, where the loss factor would revert to the "just and reasonable" level of 2.3%. *See id.* For the SMMPA and UMPMA Outlet Agreements the Commission held that the loss factors prior and subsequent to the August 25, 1991 fifteen-month refund period were the contract loss factors, 3% and 1.2%, respectively. The loss factor during the refund period and after the date of the order was 2.3%. *Id.* at 62,084.

384. 53 F.E.R.C. ¶ 61,026, at 61,098 (1990).

385. *Id.* at 61,098. The Agreement provided that FPL could charge Seminole for specified indirect Operation and Maintenance (O&M) costs. *See id.* Seminole alleged that from 1986 until 1989 FPL had overcharged \$265,000 for indirect costs that were not included in their agreement. *See id.* FPL contends that under the O&M agreement it could recover any indirect costs from normal procedures. *See id.*

386. *See id.* at 61,101. In stating that the decision to exercise primary jurisdiction was under their discretion, the Commission cited *Southern Co. Services, Inc.*, 37 F.E.R.C. ¶ 61,256, at 61,652 (1986). *See Seminole Elec. Coop., Inc.*, 53 F.E.R.C. at 61,101.

387. Under the "Arkla" test, the Commission considered the following: "(1) whether the Commission possesses some special expertise which makes the case peculiarly appropriate for Commission decision; (2) whether there is need for uniformity of interpretation of the type of question raised by the dispute; and, (3) whether the case is important in relation to the regulatory responsibilities of the Commission." *Ark. La. Gas Co.*, 7 F.E.R.C. ¶61,175, at 61,322 (1979).

388. *Seminole Elec. Coop., Inc.*, 53 F.E.R.C. at 61,101. "First, neither party has challenged the exercise of our jurisdiction. Second and more important, the ratemaking terms and the costs in dispute are matters within the Commission's special expertise, making the case peculiarly appropriate for a Commission decision." *Id.*

FERC did not analyze whether it should apply state or federal law or whether the transaction involved goods or services. The Commission purported to look to the plain language of the agreement and the parties' intent in creating the agreement.³⁸⁹ In support of Seminole's position, the Commission interpreted the O&M provision to limit indirect costs to those "specifically attributable to each project"³⁹⁰ as generally represented by the costs listed in the O&M clause.³⁹¹ The Commission agreed with FPL that Seminole's interpretation was inconsistent with the U.C.C.'s usage of trade.³⁹² Despite the trade usage, FPL did not attempt to recover these costs from Seminole until 1986,³⁹³ although the provision specifically listed costs that FPL could charge.³⁹⁴

In seven cases, FERC has applied the U.C.C. uncritically to resolve disputes. It has done so to apply U.C.C. rules on course of performance, trade usage, open price terms, parol evidence,

389. In interpreting the parties' intent, FERC considered the language of the contract, the contract's purpose, and the circumstances surrounding the "execution and performance." *Pennzoil Co. v. FERC*, 645 F.2d 360, 388 (5th Cir. 1981); *Seminole Elec. Coop., Inc.*, 53 F.E.R.C. at 61,100. The Commission considered extrinsic evidence to explain or interpret the contract language. *Seminole Elec. Coop., Inc.*, 53 F.E.R.C. at 61,100.

390. *Id.* at 61,101. Seminole argued that the O&M provision limited FPL's indirect costs to those "specifically attributable to each project." Appendix E to the Agreement covered O&M costs. "For the purposes of this agreement, operation and maintenance costs shall mean all expenses incurred by [FPL] specifically attributable to each project and properly record[ed]" *Id.* n.30. Prior to 1986, Seminole paid indirect costs in the O&M: payroll taxes and insurance, pension and welfare costs, stores loading, and engineering and overheads. In 1986 there was a change in indirect costs: "engineering and overheads" was dropped and three more were added: 1) "direct supervision and engineering," 2) "accounting, administrative, etc.," and 3) "related expenses." *Id.* at 61,104.

391. *Id.* at 61,103. At the time of the agreement, these types of indirect costs in the second sentence were recognized by the Commission's accounting regulations as standard utility costs. *See id.*

392. *Id.* at 61,100; *see* U.C.C. § 1-205 (1989). FPL asserts that at the time of their agreement, indirect costs were regarded as standard utility costs that were routinely covered by utilities.

393. *Seminole Elec. Coop., Inc.*, 53 F.E.R.C. at 61,104. FPL's prior course of conduct was consistent with the Commission's interpretation and did not contradict the O&M provision.

394. *Id.* at 61,103. Despite the "routine recovery" of these costs the provision did not refer to all costs, only to "normal loadings ... specifically attributable to each project" and lists the specific costs that FPL could charge. *Id.* In addition, prior drafts of the O&M referred to administrative and general costs, which were later omitted. *Id.* Some of the indirect costs charged by FPL since 1986 were recoverable. The Commission ordered FPL to reimburse Seminole for certain unauthorized indirect costs charged since 1986. *Id.* at 61,104. FERC found post-1985 costs for "direct supervision and engineering" to be recoverable, but not "accounting, administrative, etc." and "related expenses." *Id.*

assignment of contract, and transmission rights. In the first four of these, the U.C.C. results in a significantly different decision than under the general common law applicable to services. This difference could determine the outcome of the case and would create precedent.

The final matter above involves application of the U.C.C. to transmission which is generally conceded as a services contract. FERC applied the U.C.C. with no analysis in any of the opinions as to what is the nature of electricity or the transmission service involved, or the intent of the parties in the contract. FERC personnel report that they have never engaged in such an analysis. FERC also purports to compare whether this U.C.C. general principle conflicts with state (U.C.C.) law, without ever engaging in an analysis as to whether that particular underlying state law treats electricity as a good or a service, and thus whether the U.C.C. would even apply.³⁹⁵ If a body of U.C.C. law is applied uncritically as a general principle in seven cases, does it by sheer inertia become federal common law?

V. THE REALITY OF MODERN ELECTRIC ENERGY

For almost 200 years, scientists regarded electric charge as a sort of fluid, like water. It was at the end of the eighteenth century when the possibility that electricity did not consist of a smooth, continuous fluid, but rather of small particles, started occurring to many scientists. Even Benjamin Franklin had once written that the "fluid" consisted of "particles extremely subtle."³⁹⁶ Nevertheless, a great deal of evidence had to be accumulated before revealing the nature of atoms and electromagnetic forces.

The electron was discovered about a century ago, in 1897. Today it is recognized that electricity does consist of movement of individual electrons. Any large charge behaves like a continuous fluid in the same way sand pours like a fluid, and water in a glass is usually regarded as a fluid, even though water consists of individual molecules. Although electrons may flow in the transmis-

395. Telephone Interview with staff member, FERC (May 2002).

396. BENJAMIN FRANKLIN, BENJAMIN FRANKLIN'S EXPERIMENTS: A NEW EDITION OF FRANKLIN'S EXPERIMENTS AND OBSERVATIONS ON ELECTRICITY (I. Bernard Cohen ed., 1941).

sion of electric power, they do not have to: One can transmit large amounts of power in radar beams or laser beams through empty space, where there are no electrons to flow.

The amount of energy from an electron that moves from one wire to another is the product of the electron charge times the potential difference between the wires. The potential difference is measured in volts. With a big voltage difference, few electrons need flow. To minimize the current in the wires, power companies use the largest voltabers they can, often many hundreds of thousands of volts, for long-haul transmission.

One needs many more electrons to carry the same amount of power at the lower voltages used by the consumer at the end of the line. "Transformers" take power coming in the form of a small amount of current at high voltage, and transform it into a nearly equal amount of power at lower and less dangerous voltages but higher currents. What is sold by electrical utilities is energy.

The electrons are always there in the wires, whether or not power is being transmitted. They are in normal random thermal motion in the wires of the transmission line in close orbit around their nuclei when no power is flowing. Electrons are not consumed; we use their energy, which normally is about half electric and half magnetic. The energy is carried by electric and magnetic fields, whose squared values give the energy density (joules per cubic meter) in space. The electric and magnetic fields are made by the moving electrons.

VI. THE REAL DEAL: THE CURRENT LEX

As often with changing technologies, the law struggles to determine exactly how to characterize something that is physically ethereal. Electricity has been harnessed and sold for 125 years.³⁹⁷ However, in the highly regulated past, the common law courts have seldom confronted directly or carefully the question of exactly what "is" this modern phenomenon of electricity. With courts and private contracts replacing a significant portion of the traditional role previously assumed by executive branch regulators of electric utility monopolies, this legal determination becomes critical.

397. See, STEVEN FERREY, *THE NEW RULES*, *supra* note 4, app. A at 259-74.

The essential role of electricity in the U.S. economy was painfully evident in California. With just a very slight supply deficit at key hours and the inability to tap the reservoir of existing California on-site distributed generation, Californians saw their rates go up dramatically, incurred billions of dollars of long-term debt, endured rolling blackouts, and were forced to work without electricity.³⁹⁸

A. $E=MC^2$

What is electricity, really? Electricity is a moving electrical charge. It is the *movement* of that charge, not the charge itself, that provides electric energy's ability to do work.³⁹⁹ Generating electricity does not create any electrons, contrary to popular assumption.⁴⁰⁰ A generator does not create nor put electrons into the transmission system.⁴⁰¹ The electrons that constitute usable electricity are *ab initio* in the copper that composes the transmission and distribution system.⁴⁰² Their content is constant and remains unchanged before, during, and after electricity is "generated."⁴⁰³

The copper atoms in the wire are comprised of electrons circling the protons and neutrons in the copper atom nucleus.⁴⁰⁴ They are in close orbit around the nuclei when no electric generation is present.⁴⁰⁵ A conventional electric generation facility, by creating

398. See *supra* Part I.

399. E-mail from Will Happer, Professor, Princeton University Department of Physics, to Steven Ferrey, Professor of Law, Suffolk University Law School (Apr. 24, 2003) (on file with author).

400. *Id.*

401. *Id.*

402. *Id.*

403. The light and heat produced have exactly the same energy as has been transported into the device from the electromagnetic fields. The motion of the electrons in transmission lines or appliances is of minor significance compared to the energy transported by the fields. *Id.*

404. The electron is negatively charged at a value equal to the positive charge of the proton. In a conductor, like copper, the electrons are weakly attracted to the atom and are easily forced away to neighboring atoms. VAN VALKENBURGH, BASIC ELECTRICITY 1-7 (John F. Rider 1992) (1954).

405. Unless the wire is conducting current, there are just as many electrons going forward as backward in the wire, the electrons have frequent collisions with the other electrons and with atoms in the wire, and they transport no charge. When current flows through a wire to transmit power, there are slightly more electrons with velocities in the current direction than

an electromagnetic field, causes the electrons in one copper atom to jump to the next copper atom, *seriatim*. This sets up a high velocity, charged jump of electrons from atom to atom along the copper strand at approximately the speed of light.

This constant movement causes the total number of electrons to remain constant. It is the movement of copper electrons from copper atom to atom within the electrical field that is electricity.⁴⁰⁶ Electricity is the potential difference in electrical charge between two atoms.⁴⁰⁷ As this movement of electrons moves through a computer,⁴⁰⁸ microwave oven,⁴⁰⁹ or light,⁴¹⁰ the movement of

opposite it. There will be an average drift velocity that is very much smaller than the Fermi velocity. Consider a typical American household circuit that can carry $I=15$ amps of current before blowing out a fuse. The diameter of the wire is about 0.1 cm so its cross section is about $A=0.0079 \text{ cm}^2$. The density of electrons in copper is approximately $N=8.5 \times 10^{22} \text{ cm}^{-3}$ (one electron per copper atom), and the electron charge is $e=1.6 \times 10^{-19} \text{ C}$. So one can find the drift velocity from the formula $I=eNvA$, or $v=I/(eNA) = 0.14 \text{ cm/sec}$. This is a miniscule velocity compared to the random Fermi velocity. An electron moving at the drift velocity would take more than three minutes to move one foot down the wire. At the same time, the electric and magnetic fields that transmit the electrical power are moving down the wires at nearly the speed of light. The field velocity is slowed down slightly by a few tenths of a percent by the "dielectric" effects of the electrical insulation. E-mail from Will Happer, *supra* note 399.

406. The kinetic energy of moving electrons is $mv^2/2$, where m is the electron mass. The changes in this kinetic energy are negligibly small compared to the changes of energy associated with the creation or annihilation of electromagnetic-field energy. Almost all of the electrical power is carried by the electric and magnetic fields that race down the wires at nearly the speed of light. *Id.*

407. This potential difference is a "volt."

408. Electrical power is used for many purposes in a computer, from running the motors of fans and hard disk drives, to accelerating the electrons for the cathode ray tube of the monitor, to switching the transistors in the central processing unit (CPU). As CPUs do more and more mathematical operations per second, they consume more and more electrical power. The CPU is mounted on a heat sink that gets rid of waste heat to the circulating air. The secret for getting high-performance computers is getting the waste heat out fast enough. E-mail from Will Happer, *supra* note 399.

409. Most of the electrons in food are so strongly attached to the atoms and molecules that they cannot speed up or slow down. The electric fields of a microwave oven heat up the food by pushing on the ions in the food. The most abundant ions are positive sodium and potassium ions and in acidic foods like vinegar, hydrogen ions. The charge of the positive ions is compensated by an equal and opposite charge of negative ions, mainly chloride, bicarbonate, and in the case of vinegar, acetate ions. *Id.*

410. An incandescent lamp is a thin tungsten wire surrounded by an inert gas like argon and enclosed in a glass envelope to protect it from the air. As in any metal, the electrons in tungsten are a Fermi gas, but they bump into each other and into the tungsten atoms so frequently that there is a lot of resistance to current flow down the wire. If you flow a modest amount of current in the wire (half an amp), the wire will heat to several thousand degrees

electrons meets resistance that retards this movement, but in doing so, the resistance translates the movement to light, heat, or mechanical function.

When we turn "off" a switch, we stop the electromagnetic field movement of electrons at the switch. When the switch is turned "on," that movement continues through the switch to the appliance and the resistance the appliance offers. The energy used as resistance in the appliance is offset by a diminution of the system's electromagnetic field to conserve energy.

It is critical to understand that the generation of electricity does not create, produce, or inject into the wires any new electrons. Rather, it causes copper electrons already in the copper wire orbiting, their copper nuclei to engage in a high-speed linear wire dance to leap from atom to atom. Stop the magnets at the generator from spinning, and the electrons settle down to their normal close orbital routines. Therefore, generation merely transmits electrons from atom to atom at much-accelerated velocity. Thus, there is no "consumption" of electron matter. A transmission or transport function typically would be regarded legally as service.

Electric generators put more force flow of electrons into the grid to compensate for the resistance of running that current through consumers' appliances.⁴¹¹ That current, not the mass or matter of the electrons that are moving, is what creates and constitutes usable electric energy.

and emit light, as well as infrared radiation that one cannot see. The electric field is mainly heating the electrons, not the tungsten ions. Both the light and the infrared radiation emitted by the lamp are themselves forms of electromagnetic energy, but they have much higher oscillation frequencies than the 60 Hz power used to produce them. They propagate through free space with no need for any wires or electrons. *Id.*

411. Current is movement of subatomic particles already in a conductive medium.

The components of electric energy are both matter and energy.⁴¹² But no matter is transferred or consumed in an electricity sale; consumers do not consume or destroy the electrons. Rather the speed of the movement of those electrons/matter is delivered to a customer—not the physical ownership of the electrons themselves. A consumer uses the electric system to cause the copper atoms in the interior wiring in the consumer's premises to shed and gain electrons to and from adjoining atoms in the wire. He uses the electric grid to speed up the motion of electrons present in the copper wiring on the premises. This hooks him into the electromagnetic field that is electricity.

This electricity is an electromagnetic force or wave containing energy. A wave can move quickly with large amounts of energy, although each particular electron moves much more slowly as part of that wave. Because the work is done by the wave, it is not the *individual* electron, or the “matter of fact” that is critical.⁴¹³ It is rather the wave or motion that constitutes energy.

412.

Electricity is physical and material because, microscopically, it consists of the flow and “pressure” of a material entity, namely electrons, and macroscopically, it can be sensed (felt, tasted, seen, and heard), measured, weighed, and stored, and is subject to the universal laws of nature.... Without electrons, electricity cannot be transmitted. Though electrons themselves are very small and lightweight, they are one of the basic constituents of matter; common matter like hydrogen and iron consists of electrons, protons, and neutrons in roughly equal number. Thus, there is nothing more physical and material than an electron. Since electricity itself consists of the flow of a material object, electricity is physical and material.

In re Appeal of Pacificorp, Ca. State Bd. of Equalization, No. 90027 1, 7 (Sept. 12, 2002) (emphasis added) (definition of electricity submitted by Professor Joel Fajans, University of California at Berkeley Department of Physics).

The electric power distribution system is quite complicated. In essence, however, it can be reduced to a circuit consisting of a power source, a transmission line and a load The power source must be capable of supplying a current at a reasonable voltage, and can be, among other things, a battery, a hydroelectric plant, or a gas fired turbine generator. The transmission line can be as simple as a pair of wires like those in a household power cord.... A load is the generic name for devices that use the electricity to perform a useful service.

Id.

413. E-mail from Dr. David Fair, Intel Enterprise PCI Express Initiative Manager, Intel Corporation, to Steven Ferrey, Professor of Law, Suffolk University Law School (Feb. 4, 2004) (on file with author). The author is indebted to Dr. Fair for his feedback on some of the issues in this subsection.

Moreover, ownership and movement of each particular electron cannot be physically traced. All that can be measured is input and output from the system as a whole: the force put into the grid, and the force elsewhere appropriated. What happens between these two points of measurement on a transmission grid operates by the laws of physics.⁴¹⁴

So what is electricity? Electricity is itself a contradiction. It is both matter and energy. It is a type of low-frequency radio wave which is made of protons. It is a mysterious force which looks like blue-white fire and yet cannot be seen. It moves forward at the speed of light, yet it vibrates in the AC cord without flowing forwards. It is totally weightless, yet it has a small weight. When electricity flows through a light bulb's filament, it creates light and heat. Yet no electricity is ever consumed or destroyed by the light bulb, and every bit of it vibrates out of the filament and back down the other wire.

Modern physicists might assert that there is little distinction between energy and matter. There is little concrete difference between forces and particles. However, there is a legal continental divide along these differences, and the law requires that a choice be made.

B. Polar Opposites: Analogy to Gas and Telecommunications

Analogy is the bridge on which the law often crosses a divide to a new frontier. The poles of this divide are demarcated by natural gas and telecommunications. Which is a closer physical analogy to electricity: (1) natural gas or (2) telecommunications and cable television service? The former is adjudicated legally as a good, the latter a service.

1. Physical Realities

There is an immediate reflex to analogize electricity to natural gas. Both are regulated by FERC and both are energy *inputs* in our society. Telecommunications is regulated by the Federal Communi-

414. The electricity propagates pursuant to Kirchoff's Law. See FERREY, INDEPENDENT POWER, *supra* note 4, ch. 8.

cations Commission (FCC) and is an ultimate end-use unto itself, unlike energy. Thus, if natural gas is a good, electricity might similarly be a good. As it turns out, such distinctions are superficial.

Natural gas is definitively characterized as a good: It is comprised of hydrocarbon molecules that are containable, inherently storable, measurable, trackable, and are per se the delivered product. Electricity, by contrast, is the access and interconnection to a contained energized wave on a closed circuit, but does not transfer and "consume" identifiable units, molecules, or matter. Access to the energy in this circuit is leased for a period of time. Leases of time and access, unlike the sale of natural gas molecules, typically would be regulated as service transactions.

Electricity differs physically as well as statutorily from natural gas in that electricity is a more expensive-to-produce, derived form of energy. It is also difficult to store, moves at speeds that approximate the speed of light,⁴¹⁵ and has regional markets. Natural gas, on the other hand, can be stored efficiently, is traded in a nationwide market, is traded as a commodity, is governed pursuant to the Natural Gas Act by FERC, and moves from fifteen to twenty-five miles per hour.⁴¹⁶ Even the terminology is different: Electricity is "transmitted," while natural gas is "transported." The latter concept is much more tangible and physical. Both potentially can cause serious injury under certain circumstances.

Telecommunications and telephone transmissions are surprisingly similar to electricity. Telecommunications travel in electromagnetic waves through microwave transmissions which themselves travel through space, over copper wire, or fiberoptic cable. Telecommunications and television broadcasts⁴¹⁷ utilize the electromagnetic spectrum, as does electricity. The telecommunications network operates propelled by electricity: It transmits in the

415. Elizabeth Pendley, *Deregulation of the Energy Industry*, 31 LAND & WATER L. REV. 27, 62-63 (1996).

416. *Id.*

417. A television signal is an electromagnetic wave from an antenna transmitted through space at the speed of light. The consumers' antennae receive small amounts of power (a few millionths of a watt). In this signal are binary integers of information for transmission of picture and sound. E-mail from Will Happer, *supra* note 399.

electromagnetic spectrum, for the purpose of a sound and/or video image.

Phone conversations are measured by the units of time (and distance, a proxy for the amount of capital used in the service) the user is connected to a network, exactly as electricity transactions are billed. One leases time on the electric network, and thereby diminishes its capacity. This "time" dimension in the denomination of the electric sale (or lease) is not shared with natural gas, oil, or other energy sources, where the commodity itself is sold and possession passed.

It could be argued that it is merely pragmatic, and not of critical importance practically or legally, that telecommunications and cable television services (both legally considered services) also are measured in increments of time and distance. However, rather than distinguishing them from electricity, this reveals an elemental similarity: Electricity and telecommunications both could be denominated and transacted as a flat-fee sale rather than denominated and billed differentially by time. In many developing nations, electricity to rural customers is sold based on a flat monthly charge dependent upon the size of the customer circuit, which limits how many light bulbs or appliances can be connected at a given time.⁴¹⁸ Similarly, many phone plans also now feature unlimited calling for a flat fee.

Electricity, television, and telecommunications transactions do not involve the transfer of exclusive legal possession of a tangible "good," as do oil or natural gas sales. There is no physical flow of a containable volume of matter when electricity and telecommunications are involved. One is truly accessing a network, and one diminishes the common capacity or utility of that network by one's interconnection and use. With electricity, the velocity/voltage of the network is replenished and held constant by providing more generation to maintain overall system voltage. Electric generation maintains system velocity of movement; it does not create new electrons for sale. Therefore, despite superficial similarities to

418. This is observed from the author's experience working for the World Bank and United Nations in Indonesia, Sri Lanka, Uganda, Thailand, India, and Vietnam over the past decade.

fossil fuels, electricity has as much or more in common with telecommunications and television services.

There are two legal poles between which electricity must be evaluated. At one pole stands telecommunications and television transmission and at the other pole stands fossil fuels. It is settled that telecommunications is regarded as a service and not a "good" or commodity.⁴¹⁹ Similarly, audio and visual television communications have been deemed to be a service rather than a good or commodity.⁴²⁰

2. Tangibility

In some instances, courts have construed "commodities" under the federal antitrust statutes as equivalent to a "good." In dicta, some courts in telecommunications matters have utilized an analogy for purposes of contrasting the nature of telephone service with electricity. In *National Communications Ass'n*, the court rejected a plea to analogize long distance voice telecommunications services to electricity because electricity is not "tangible," without the court providing any further explanation as to what is or is not "tangible."⁴²¹

In *City of Gainesville v. Florida Power & Light Co.*, the court found that electricity is a commodity entitled to the antitrust protection because the dominant nature of electricity is "tangible."⁴²² The court, quite tellingly, confessed that "the tangible-intangible

419. See *MCI Telecomm. Corp. v. Alhadhood*, 82 F.3d 658, 664 (5th Cir. 2003) (holding long distance telephone calls did not constitute "commercial activity" within the meaning of the Foreign Sovereign Immunities Act); *Daleure v. Kentucky*, 2001-2 Trade Cas. (CCH) ¶ 73,449 (6th Cir. Oct. 17, 2001), 51 Fed. R. Serv. 3d (West) 513 (Oct. 17, 2001) (finding telephone services were not "goods" pursuant to Robinson-Patman Act); *Nat'l Communications Ass'n, Inc. v. Am. Tel. & Tel. Co.*, 808 F. Supp. 1131, 1136 (S.D.N.Y. 1992) (holding long distance voice communication services were not commodities to which the Robinson-Patman Act applied but instead were "services").

420. See *Rankin County Cablevision v. Pearl River Valley Water Supply Dist.*, 692 F. Supp. 691, 692-93 (S.D. Miss. 1988) (holding that cable television service was not a commodity); *Am. Tel. & Tel. Co. v. Delta Communications Corp.*, 408 F. Supp. 1075, 1114 (S.D. Miss. 1976) (discussing the purchase and sale of television signal programming and finding that no sale or purchase of any tangible commodity was involved for purposes of Robinson-Patman Act, which "only relates to the sale of tangible commodities and not to services"). Many of these decisions occurred within the context of antitrust litigation.

421. *Nat'l Communications Ass'n*, 808 F. Supp. at 1135-36.

422. 488 F. Supp. 1258, 1281 (S.D. Fla. 1980).

distinction assists little in the case of electricity [T]his analysis is somewhat facile and incomplete."⁴²³ The parties wishing to call electricity a commodity argued that electrons can be sold, and that the dominant purpose in purchasing electricity is for its physical properties as opposed to any legal interest and personal services one acquires with its purchase.⁴²⁴ This argument might apply at the retail level; however, with electricity futures being traded as a commodity and electricity being hedged like a financial instrument, this "physical properties" distinction made by one of the parties in 1980 may not apply as much to the deregulated electricity model.

The *City of Gainesville* court was critical of a Fourth Circuit panel and a single judge of the Fifth Circuit assuming that electricity is a commodity or good without any careful analysis.⁴²⁵ Curiously, the *City of Gainesville* court held that it would be anomalous if coal, gasoline, and natural gas were deemed to be commodities and electricity was not.⁴²⁶ For antitrust purposes, other forms of energy have been determined to be commodities within the scope of federal antitrust statutes, including coal,⁴²⁷ gasoline,⁴²⁸ and natural gas.⁴²⁹ Clearly, the court in *City of Gainesville* wanted to apply antitrust law to the very significant commerce that occurs with electricity, and was only able to do so by assuming that all forms of energy should be treated similarly for

⁴²³ *Id.*

⁴²⁴ *Id.*

⁴²⁵ *Id.* at 1282 (citing *Pa. Water & Power Co. v. Consol. Gas, Elec. Light & Power Co.*, 184 F.2d 552, 559 (4th Cir. 1950)); see also *Ala. Power Co. v. Ala. Elec. Coop., Inc.*, 394 F.2d 672, 679-80 (5th Cir. 1968) (Godbold, J., dissenting).

⁴²⁶ *City of Gainesville*, 488 F. Supp. at 12. The court found that it would be odd that Congress should intend "that one form of manufactured energy [electricity] be exempt from these antitrust laws while others [coal, natural gas, and gasoline] are not." This statement ignores the physical difference in how the fossil fuels can be stored and are sold by units of their volumes, whereas electricity cannot be stored and is sold by the amount of time and level at which one hooks into an energized network.

⁴²⁷ *Tampa Elec. Co. v. Nashville Coal Co.*, 365 U.S. 320 (1961) (assuming coal within Clayton Act as a commodity).

⁴²⁸ *FTC v. Sun Oil Co.*, 371 U.S. 505 (1963) (treating automobile gasoline as within Clayton Act); *United States v. Richfield Oil Corp.*, 99 F. Supp. 280, 284-86 (S.D. Cal. 1951), *aff'd*, 343 U.S. 922 (1952) (holding automobile gasoline and other petroleum products within Clayton Act).

⁴²⁹ *B & W Gas Inc. v. Gen. Gas Corp.*, 247 F. Supp. 339, 344-45 (N.D. Ga. 1965) (assuming natural gas is covered by the Clayton Act).

purposes of determining the intent of Congress under a specific antitrust statute.⁴³⁰

The legislative history indicates that members of the House Judiciary Committee sought unsuccessfully to amend the definitions to define antitrust "commodities" to include "services."⁴³¹ Therefore, with the application of antitrust statutes to electricity, unlike the application of common law, there is legislative history that services are not included. The legislative history of the federal antitrust statutes plays a role not found with the common law.

In applying contract or tort common law to a variety of disputes, which may happen to involve energy, there is no legislative intent, specific definitions, or statutes upon which to rely. Moreover, all fifty states will apply their or others' choice of law rules to these disputes, and will inevitably result in varied and nuanced interpretations of what is a good and what is a service. Therefore, while interpretations of the legislative intent in antitrust or other federal statutes concerning what is a good for application of that specific statute is of interest, it is not particularly illuminating of what a "thing" truly is under the common law.

A pair of circuit court cases demonstrate the courts' general failure to recognize the numerous similarities between electricity and telecommunications services. In *City of Kirwood v. Union Electric Co.*, the Eighth Circuit reversed the district court to find that because "[e]lectric power can be felt, if not touched, produced, sold, stored in small quantities, transmitted and distributed in discrete quantities," it is therefore a commodity subject to the

430. The fossil fuels are forms of energy that have very distinct mass and volume: They can be independently packaged, transported outside of the pipeline network, and sold by their inherent volumes. In comparison, electricity is not routinely stored outside the transmission system and is not sold by inherent physical volumes, but rather by units of time connected to an energized network. Moreover, there is more need for uniformity when applying a particular congressional statute, such as the Robinson-Patman Act or the Clayton Act, which regulate anticompetitive conduct in certain major industries. There, if one energy industry's anticompetitive conduct is regulated, so should be a similar or parallel energy industry's conduct. In theory, one would not want to sanction anticompetitive conduct in the natural gas industry, while absolving it from similar federal statutes in the national electric energy industry. With antitrust or other statutes, there is a specific statutory intent and legislative history that can be fathomed as well as specific definitions of the regulated "thing."

431. See *City of Gainesville*, 488 F.Supp. at 1281.

Robinson-Patman Act.⁴³² Again, the court's summary conclusion is somewhat facile. Electricity is not "stored in small quantities" except in batteries, in which case batteries themselves become a good.⁴³³

In *Metro Communications Co. v. Ameritek Mobile Communications, Inc.*,⁴³⁴ the Sixth Circuit held that "cellular telephone service is very different from electricity. It cannot be produced, felt, or stored, even in small quantities. The [cellular] plaintiffs do not buy a quantity of it, store it and resell it to their customers. They simply provide customers with access to the service."⁴³⁵ The agent involved in the litigation merely acted as an intermediary between the provider of the telephone service and the user, but technically did not buy a block of services and take the risk of reselling that block to the customers. The *Metro Communications* tribunal found this to be a critical distinction because the agents did not do the buying and selling.⁴³⁶

The distinction the court made in *Metro Communications* is interesting in that what makes telecommunications a service goes to the role that a party plays in the transaction, and not what the "thing" is itself. This distinction, however, is neither compelling nor practical. If one were to analogize telecommunications to electricity, this would mean that electricity might be a service for those intermediary marketers, brokers, middlemen and aggregators—a significant component of the new deregulated electricity market—while electricity could be a good for the wholesalers and retailers of electricity.

In *Metro Communications*, the court found it dispositive that telephone service cannot be "produced, felt, or stored,"⁴³⁷ while

432. 671 F.2d 1173, 1181 (8th Cir. 1982). Relying on *City of Gainesville*, the court summarily found that electricity was a commodity at least for purposes of the Robinson-Patman Act. *Id.* at 1182.

433. Rather, when electricity is "stored" it is usually done by raising water back up to the top of a dam using electric pumps. This "storage" is in the form of potential energy (water at the top of the dam) in a physical state rather than storage in any form of "electricity." The new electricity storage technologies of compressed air energy storage and superconducting magnetic energy storage also do not store electricity in an "electric medium," but rather do so in other media. See FERREY, INDEPENDENT POWER, *supra* note 4, ch. 2 § 20.

434. 1993-1 Trade Cas. CCH ¶ 70,105 (6th Cir. 1993).

435. *Id.*

436. *Id.*

437. *Id.*

electric “goods” implicitly can be.⁴³⁸ This comparative conclusion of the court simply is not factually true. Electricity is not produced or stored, and telecommunications are felt.

Electric energy is not “produced” in a conventional physical sense; it is a transformation of other sources of energy (typically fossil fuels) in the universe to accelerate the movement of preexisting copper electrons already in close orbit around their nuclei. Electricity is analogous to phone service in that phone service uses electrical impulses (either through microwave or copper wire transmission) to transfer voice or data communication through a transmission system to a remote location. Electricity and telephone communication are transmitted in a physical sense using the electromagnetic spectrum, involving similar physical mechanisms.

It is also misleading for a court to conclude that telephone services cannot be “stored” as electricity can. Electricity (movement of electrons) is not inherently stored physically, but must be transformed to chemical energy packaged in a battery or other medium for subsequent discharge of stored chemicals back into electricity. Similarly, telecommunications data can be stored—again not inherently, but in data storage and retrieval systems—for discharge and delivery at a subsequent time. Computers and the Internet do this daily.

It is also not a particularly meaningful distinction for a court to base a decision on a finding that electricity can be “felt.” It cannot be felt as physical mass or a volumetric presence. One can experience a sensory reaction after coming in contact with an electric force or field, but one does not see or describe spatially the physical presence of electricity. Correspondingly, telephone service, while the court describes it as not “felt,” can be heard, and is therefore, in fact, “felt.” Hearing a telephone communication is a physical vibration of sound pressure waves in air against the sensitive receptors of the human inner ear. While this is a different sense than touch with fingers, it nevertheless is felt by the body. Does this necessarily make something that cannot be grasped any more tangible? Gravity and magnetism can be felt and harnessed or manipulated, but does that make them “goods” if they are somehow sold and purchased? If telecommunications is not tangible, and

438. *Id.*

natural gas is tangible, electricity bears at least as much similarity to the former as to the latter.

C. Weights and Blends: Hybrid Good and Service

It can be argued that there truly are blended elements of both good and services in what is transacted in a wholesale, and particularly a retail, electric transaction.⁴³⁹ Several courts have concluded that electricity is indeed a hybrid of good and service.⁴⁴⁰ Where courts confront a transaction involving both goods and services in a single contract, they must determine whether the goods or services dominate in the transaction. This then determines, respectively, whether the U.C.C. or the general common law will govern the legal relationship.⁴⁴¹

There are numerous tests that courts have applied to determine whether a transaction that involves both goods and services is governed by the U.C.C.⁴⁴² The "predominantly service test"

439. This blend would occur only if a state determined electricity to be a good, while finding transmission and distribution to be a service, and stranded cost recovery a financial intangible. In those states where electricity is deemed a service, no blend would result.

440. "While the distribution of electricity through a system of towers, poles, and wires may well be considered a service, the electricity itself is a consumable product." *Houston Lighting & Power Co. v. Reynolds*, 712 S.W.2d 761, 766 (Tex. App. 1986). "The distribution might well be a service, but the electricity itself, in the contemplation of the ordinary user, is a consumable product." *Ransome v. Wis. Elec. Power Co.*, 275 N.W.2d 641, 643 (Wis. 1979).

441. *Paramount Aviation Corp. v. Gruppo Agusta*, 288 F.3d 67, 72 (3d Cir. 2002) ("When a contract is for goods and services, a court must determine which aspect of the contract, the goods or the services, predominates. In making this determination, a court must examine the whole transaction and look to the essence or main objective of the parties' agreement.") (citation omitted); *Palmetto Linen Serv., Inc. v. U.N.X., Inc.*, 205 F.3d 126, 129 (4th Cir. 2000) (citing *United States v. S. Contracting of Charleston, Inc.*, 862 F. Supp. 107, 109 (D.S.C. 1994)). The U.C.C. governs where the contract's "predominant thrust is a transaction of sale with labor incidentally involved." *Novamedix, Ltd. v. NDM Acquisition Corp.*, 166 F.3d 1177, 1182 (Fed. Cir. 1999) ("New York courts apply the 'predominant purpose' test."); *Dakota Gasification Co. v. Pascoe Bldg. Sys.*, 91 F.3d 1094, 1098 (8th Cir. 1996) (holding that in hybrid contracts, the predominant factor, the thrust and the purpose govern whether the U.C.C. or common law applies); *A.T. Kearney, Inc. v. Int'l Bus. Mach. Corp.*, 73 F.3d 238, 243-44 (9th Cir. 1995) (holding that while electricity transmission and distribution would be a service, the ordinary user contemplates electricity as a consumable product once it has been sold and delivered through a consumer's meter and this predominates); *Mass. Cash Register, Inc. v. Comtrex Sys. Corp.*, 901 F. Supp. 404, 418 (D. Mass. 1995) (holding that the predominant factor, thrust or purpose of the contract determines which law applies).

442. See Crystal L. Miller, Note, *The Goods/Services Dichotomy and the U.C.C.: Unweaving the Tangled Web*, 59 NOTRE DAME L. REV. 717, 720-32 (1984) (noting four tests

examines the intent and the objective of the parties to determine if the transaction is primarily for services.⁴⁴³ Conversely, courts have created a “predominant factor” or “thrust” test, to determine if the sale of goods is the predominant factor.⁴⁴⁴ Courts also utilize a “final product” test and consider if the end product is a product or a service.⁴⁴⁵ Courts have also employed a “policy test” that creates a characterization of the transaction on a case-by-case basis.⁴⁴⁶ According to the federal court jurisprudence, the issue of whether in a particular transaction involving both goods and services, one or the other predominates or is the “thrust” of the contract, “is an issue of material fact, which must be resolved at trial.”⁴⁴⁷

Where electricity sales may contain both elements, the legal inquiry is: What dominates in the intentions of the parties? Courts

that purport to aid courts when analyzing hybrid contracts).

443. *Id.* at 721-23. Courts applying this test examine the structure and language of the contract and the nature of the services to discern the intent of the parties. *Perlmutter v. Beth David Hosp.*, 123 N.E.2d 792, 794-95 (N.Y. 1954). This test is limited to situations where the services are essential to the contract and unique to the particular circumstances. *See Miller, supra* note 442, at 722. For example, a helicopter owner sued an engine overhaul company for breaching warranty provisions under the U.C.C. The court reasoned that the parties primarily intended the performance of a service (engine overhaul) and not a good (delivery of replacement parts). *T-Birds, Inc. v. Thoroughbred Helicopter Serv., Inc.*, 540 F. Supp. 548 (E.D. Ky. 1982). Although the service may produce a good, the desired service is the predominant factor in the contract. *Miller, supra* note 442, at 723.

444. *Miller, supra* note 442, at 723-25. The predominant factor test examines whether the thrust of the transaction was the sale of goods or the rendition of services. Courts examine the parties’ intent as revealed in the contract or the circumstances surrounding its execution. *See Bonebrake v. Cox*, 499 F.2d 951, 960 (8th Cir. 1974) (holding contract to deliver and install bowling equipment is one for goods); *Meyers v. Henderson Constr. Co.*, 370 A.2d 547, 549-50 (N.J. Super. Ct. Law Div. 1977) (applying the *Bonebrake* test and holding that a contract for overhead doors was one for goods despite installation services); *see also Paramount Aviation Corp.*, 288 F.3d at 72-73 (discussing that under New Jersey law a contract is governed by the U.C.C. when the goods predominate); *Scott v. Dixie Homecrafters*, 125 F.Supp. 2d 1311, 1313 (M.D. Ala. 2000) (setting forth that when a contract is predominantly for goods, with labor incidental to that contract, the Alabama Commercial Code applies); *ITT Corp. v. LTX Corp.*, 732 F. Supp. 1225, 1234-35 (D. Mass. 1990) (holding production and assembly of cable assemblies to be governed by the U.C.C.).

445. *Miller, supra* note 442, at 726-27. This test evaluates the definition of “goods” under the U.C.C. and examines whether the final product is movable, tangible and identifiable. If the product is clearly a good, so long as it is movable, identifiable and tangible, the U.C.C. governs, regardless of the amount of service involved in completing the contract.

446. *Id.* at 728-29. This test is a policy-based, case-by-case test, which is inconsistently applied.

447. *IMC Chems. Inc. v. NIRO, Inc.*, 30 F. Supp. 2d 1328, 1332 (D. Kan. 1998).

can choose to utilize a quantitative or qualitative methodology to make this determination. First, courts may simply sum the monetary value of the service components and sum the monetary value of the tangible goods involved in the transaction, to see which is the dominant quantitative element.⁴⁴⁸ Second, courts may attempt to determine whether the buyer selected the particular seller of the good or service more because that party was licensed or capable of providing those particular brands or types of goods, or more because they wanted the particular qualitative service provided by the seller.⁴⁴⁹ Similarly, the court might inquire whether the seller sought to distinguish itself based on its service component or the goods it vended.

When one applies either of the hybrid-dominant tests to an electricity transaction, each militates in favor of finding electricity to be a service. The first judicial test—analyzing the monetary weight of the good and service components purchased at the retail level in an electricity transaction—reveals the following components, which can vary and fluctuate over time, region, and provider:

- the electricity commodity: 2.5¢-4.5¢/KWh;
- the electricity service;
- transmission and distribution of the electricity: 4¢/KWh;
- renewable, conservation, or low-income surcharges: 0.3¢/KWh;
- stranded cost recovery: 1.5¢/KWh.⁴⁵⁰

448. *Cambridge Plating Co., Inc. v. NAPCO, Inc.*, 991 F.2d 21, 24-25 (1st Cir. 1993) (itemizing the value of the equipment, which was eclipsed by the value of the service, to conclude that it fell outside of the scope of the U.C.C.).

449. *See, e.g., Paramount Aviation Corp.*, 288 F.3d at 72-73; *A.T. Kearney, Inc. v. Int'l Bus. Mach. Corp.*, 73 F.3d 238, 243 (9th Cir. 1995).

450. These tariffs are typical for Boston Edison Company in Massachusetts. The stranded cost component is a ten-year charge that terminates in 2007. *See* Electric Schedule of Rates, available at http://www.nstaronline.com/ss/customer_service/rates/schedule.asp (last visited Jan. 29, 2004). It is of note that in a wholesale transaction, the electric commodity will be the dominant factor compared to any transmission costs of that commodity, in most cases. Most of the legal debate, however, will evolve around retail transactions in restructured retail markets, where the courts will play an increasingly important role in lieu of regulators.

The dominant weight of the financial components of a retail electricity transaction are the transmission and financial services, rather than the electric commodity, even assuming, *arguendo*, that the electric commodity is deemed a good. Under this analysis, the transmission and financial service component dominates the weight of the transaction, and the U.C.C. would not apply.

It is clear that retail electricity involves both the sale of the energy (whether that be deemed a good or a service) and a transmission and distribution service, as well as certain financial and administrative services. Analogizing to another utility is instructive on this issue. The sale of water is certainly more “tangible” than the sale of electricity: Water molecules are actually transferred to, and thereafter consumed by the purchaser, whereas no electric electrons are consumed.⁴⁵¹ Nonetheless, a number of courts have found the provision of water to be a hybrid contract which is dominated by the service component, and thus did not apply the U.C.C.:

Water is a unique product and is essential to human health and well-being. Here, the city did not create or manufacture the water. Rather, the city, by a system of reservoirs, captured the water from brooks, streams, and rainfall. It treated the water and then distributed it to its citizens. Although the city charged a sum for the water, that rate reflected the cost of storage, treatment and distribution. Thus, it is clear that the predominant factor, thrust, or purpose of the activity was the rendition of services and not the sale of goods.⁴⁵²

Similarly, electricity involves capture and treatment of the electrons in the system, as well as a significant distribution function. Moreover, unlike the water molecules, which are a finite commodity whose title and possession is actually transferred, electric system electrons are not transferred in the same way to the consumer at the point of sale. Water is more tangible both physically and legally than electric sale. This analogy reflects that if

451. By contrast, a waste water treatment system is often deemed to be predominantly the sale of the hardware, rather than the associated service. *Coca-Cola Bottling Co. v. Weston & Sampson Eng'rs, Inc.*, 695 N.E.2d 688, 690 n.6 (Mass. App. Ct. 1998); *Waste Stream Envtl., Inc. v. Lynn Water & Sewer Comm.*, 15 Mass. L. Rep. 723 (Super. Ct. 2003).

452. *Mattoon v. City of Pittsfield*, 775 N.E.2d 770, 784 (Mass. App. Ct. 2002).

water is deemed a service in terms of its predominant factor, electricity would also seem to be predominantly a service.

The second judicial test, which evaluates the parties' intent, in a deregulated electric market (which constitutes the market currently in approximately twenty states), a typical consumer's selection of a particular competitive provider will likely be based upon (1) the particular pricing and terms they offer for the electric sale, (2) the service reputation and reliability of the provider, and (3) the financial stability and resources of the provider.⁴⁵³ Because electricity is generally not differentiated by most consumers as a distinguishable or branded product in today's market,⁴⁵⁴ the type of electrons or commodity is not a reason that a consumer would choose a particular supplier. In fact, the electric commodity is completely standardized as to uniform system frequency, voltage, ancillary services and other key physical characteristics by the requirements of the integrated grid operator or the distribution utility.⁴⁵⁵

Therefore, under this second analytic test, it is not the provider's distinctive brand or type of electricity, but rather the financial and service capabilities of the provider, that are the key factors in an individual consumer decision selecting its retail electricity supplier. To date, providers/sellers have sought to distinguish themselves principally based on reliability. Therefore, the service elements would dominate, and the U.C.C. would not apply to a bundled transaction *even if* the electric commodity were deemed a good by state tribunals. If the state deemed the electric commodity a service, then the bundled retail sale would also be deemed a service. In an unbundled transaction, the electric commodity would be evaluated alone as a good or service.

453. Indeed, suppliers have failed to perform in California and in other states. In those thirty states that have retained monopoly utility supply of electric power, there is no choice of supplier and consumers make no election.

454. The one exception to this is for "green" or renewable energy products. In many states there are efforts to fashion the creation of eligible renewable energy products, and to "brand" these as distinct products or services for sale. This has occurred in a number of states including Massachusetts, Texas, California, Virginia and elsewhere. For a general discussion of these issues, see generally Steven Ferrey, *Exit Strategy: State Legal Discretion to Environmentally Sculpt the Deregulating Electric Environment*, 26 HARV. ENVTL. L. REV. 109 (2002).

455. See FERREY, INDEPENDENT POWER, *supra* note 4, ch. 8.

CONCLUSION

Careful analysis gives strong voice to the conclusion that retail electricity transactions in a deregulated market in twenty states and a bundled regulated market in thirty states today are more dominated by service considerations. Yet few courts in adjudicating contract rights have yet engaged in careful analysis. In part, this is a result of attorneys who do not carefully form and advance these issues for the courts. In fact, in California, despite tens of billions of dollars now at stake, some attorneys have overlooked these outcome-determinative issues.

The fact that electricity is “sold” also is not dispositive: Telephone service is sold and cable television service is sold. Yet, both are indisputably services. Similarly, both cable television and telephone service are transmitted, in the electromagnetic spectrums and can be “distributed in discrete quantities.”⁴⁵⁶ Telephone service is distributed and sold in quantities as discrete as one minute intervals, while electricity is billed in no smaller than hourly intervals (as a kilowatt hour of service). If telephone service quantities under court precedent are “discrete,” then certainly electric quantities are “discrete” also.

Distinctions made by various tribunals finding electricity similar to fossil fuels and dissimilar to telecommunications and television services have some superficial appeal. There is a tendency, perhaps because FERC regulates both gas and electricity, while the FCC regulates telecommunications services, for courts to assume that two very different energy forms regulated by a single agency, FERC, must legally be assumed to be the same thing.⁴⁵⁷ In the case of FERC, which not only makes substantive law but may be viewed by some courts as wielding influential “agency” expertise relative to energy matters, electricity reflexively is treated as a good

456. *City of Kirkwood v. Union Elec. Co.*, 671 F.2d 1173, 1181 (8th Cir. 1982).

457. It is interesting that among the fifty states, all of whom regulate to some degree the retail aspects of natural gas, electricity, and telecommunications services, the same state agency typically regulates telecommunications, natural gas, and electricity. Therefore, any tendency of the federal courts to wish to achieve a certain symmetry in applying federal antitrust and other laws breaks down when looking at the simultaneous regulation of these same utilities occurring at the state levels. For a discussion of the regulatory rubric at the state level, see FERREY, *THE NEW RULES*, *supra* note 4, at 28-29.

because natural gas is a good. This FERC position evolved apparently without careful analysis of the comparisons or differences from a policy, physical, or legal perspective.⁴⁵⁸

Indeed, ease and habit make illogical and inappropriate legal doctrine. Merely because FERC is the federal agency regulating electricity and natural gas (along with fifty state agencies), the FERC determination to apply uncritically⁴⁵⁹ the U.C.C. to both electricity and gas disputes is not helpful. Under more careful examination, these dichotomies are more semantic than they are absolute. The nature of electricity can be deconstructed to transactional elements that bear more resemblance to telephone service than to the sale of natural gas commodities or goods.

These distinctions between electricity and other services made by various courts, while provocative, work a judicial convenience and do not achieve a definitive or transcendent resolution. Since this determination typically is outcome determinative—the very choice of whether to call something a good, a commodity, or an article of commerce as opposed to a service—it is made with full understanding of the implications it has for which party prevails.

In an unbundled, deregulated market where the electric commodity can be purchased individually, the electric commodity as either good or service stands alone. Physical reality indicates that electricity has attributes of a service. In that majority of states where electricity is still bundled in a transaction including transmission and distribution services, even if the power component were deemed by a state to be a good, the other service components of the bundled transaction would still dominate the hybrid transaction.

With the implosion of the California energy market and the collapse of many of the major wholesale and retail independent providers of electricity, this often-overlooked choice of law factor may arbitrate billions of dollars of contract and deal disputes. Because of the long-term relevance of such disputes, this issue deserves new and urgent consideration, as well as principled resolution based on physical reality.

458. Telephone Interview with FERC staff member, *supra* note 395. FERC staff indicated that no analysis had been performed, no current staff could recall on what basis electricity has been treated as a "good," but that it was convenient.

459. See *supra* Part IV for a discussion of FERC doctrine.

APPENDIX

*A. Formation, Content, and Modification of Contract**1. The Statute of Frauds*

There are more than a dozen important differences between the common law and the U.C.C.⁴⁶⁰ One of the biggest distinctions is the requirements of the statute of frauds. At common law, electricity contracts not to be performed fully within one year, electricity contracts involving a suretyship or guarantee of payment, and, in some states, contracts involving an electricity agency or broker relationship in the procurement of electricity, fall within the statute of frauds and require written evidence to be enforceable.⁴⁶¹ Common law requires writings with common reference, containing all material terms that evidence the signature of the party against whom the contract would be construed.⁴⁶²

In contrast, section 2-201 of the U.C.C. provides that in order for a contract for the sale of goods over \$500 to be enforceable, there must be "some writing sufficient to indicate that a contract for sale has been made."⁴⁶³ All that is required is the signature of the party who is to be bound, the quantity of the good, and that it be a contract for the sale of goods.⁴⁶⁴ The price, time, and place of payment or delivery, the general quality of the goods, or any

460. Some of these were set forth in the table in Part II.

461. According to the Restatement (Second) of Contracts § 110, the following contracts must be evidenced by a writing in order to be enforceable: (1) a promise to answer for the debt, default or miscarriage of another, including the promise of an executor or administrator to answer for the obligations of the decedent out of the administrator's own pocket; (2) a contract to transfer an interest in real property; (3) a contract to answer for the duty of another; (4) "a contract made upon consideration of marriage;" and (5) "a contract that is not to be performed within one year from the making thereof." RESTATEMENT (SECOND) OF CONTRACTS § 110 (1981).

462. See U.C.C. § 2-201 (1989). As to contracts within the statute of frauds—other than those governed by U.C.C. § 2-201—the writing must contain "substantially the whole agreement and all its material terms and conditions, so that one reading it can understand from it what the agreement is." *Mentz v. Newwitter*, 25 N.E. 1044, 1046 (N.Y. 1890).

463. U.C.C. § 2-201(1).

464. See U.C.C. § 2-201 cmt. 1; E. ALLAN FARNSWORTH & WILLIAM F. YOUNG, CASES AND MATERIALS ON CONTRACTS 298-99 (5th ed. 1995) (discussing U.C.C. § 2-201 cmt. 1).

particular warranties may all be omitted.⁴⁶⁵ According to the first official comment to section 2-201 of the U.C.C., "[a]ll that is required is that the writing afford a basis for believing that the offered oral evidence rests on a real transaction."⁴⁶⁶ Moreover, under the U.C.C., unlike the common law, "[a] writing is not insufficient because it incorrectly states a term agreed upon;"⁴⁶⁷ if the quantity is understated, however, "recovery is limited to the amount stated."⁴⁶⁸

The U.C.C. also has a so-called "two merchants" exception, which is one of the most remarkable features of section 2-201.⁴⁶⁹ "When it applies, it makes a writing efficacious against a non-signer."⁴⁷⁰ The U.C.C. two merchant rule assumes that "the recipient will shortly give 'written notice of objection to [the] contents' of such a message" if he does not wish to be bound by a writing that satisfies the statute of frauds against the sender.⁴⁷¹ "The consequence of failing to do so ... is to 'take away from the party who fails to answer the defense of the Statute of Frauds.'"⁴⁷²

What binds one merchant to the electricity deal for statute of frauds purposes, therefore, works to bind the other party, unless he provides a seasonable objection. The common law has no such reciprocity—the contract can be binding against one party, while the other has a statute of frauds defense. Under the U.C.C., contracts for specially manufactured goods and contracts fully performed or admitted to are not subject to the statute of frauds.⁴⁷³

465. See U.C.C. § 2-201 cmt. 1.

466. *Id.*; see also FARNSWORTH & YOUNG, *supra* note 464, at 298-99.

467. U.C.C. § 2-201(1).

468. *Id.* § 2-201 cmt. 1.

469. U.C.C. section 2-201(2) provides:

Between merchants if within a reasonable time a writing in confirmation of the contract and sufficient against the sender is received and the party receiving it has reason to know its contents, it satisfies the requirements of subsection (1) against such party unless written notice of objection to its contents is given within 10 days after it is received.

470. FARNSWORTH & YOUNG, *supra* note 464, at 300 (emphasis omitted) ("It proceeds on the principle that a regular player in the commercial world will not stand silent upon the receipt of a message indicating its assent to an agreement that it did not make.").

471. *Id.* at 300 (quoting U.C.C. § 2-201).

472. *Id.* at 300-01 (quoting U.C.C. § 2-201 cmt. 3).

473. See U.C.C. § 2-201.

The statute of frauds also requires the signature of the bound party to the contract.⁴⁷⁴ What qualifies as a signature to satisfy the requirement of the statute has evolved throughout the years and today a “signature is any mark, written, stamped or engraved that is placed by a party anywhere on the writing with intent to assent to and adopt (authenticate) the writing as the party’s own.”⁴⁷⁵ As Calamari and Perillo further explain:

Where the terms necessary to satisfy the statute are in two or more documents and only one is signed by the party to be charged ... [i]f the unsigned document is physically attached to the signed document at the time it is signed, or if one of the documents by its terms expressly refers to the other, there is no problem; the Statute is satisfied.⁴⁷⁶

The requirement to produce a writing to authenticate a power deal is, therefore, much more easily satisfied if electricity is deemed a good.

2. Parol Evidence Rule

The parol evidence rule differs at common law and under the U.C.C. The parol evidence rule “excludes evidence of certain terms agreed upon prior to [or contemporaneously with] an integrated writing, whether the terms are written or oral.”⁴⁷⁷ This rule is

474. *See id.* § 2-201(1).

475. JOHN D. CALAMARI & JOSEPH M. PERILLO, *CONTRACTS* 210 (3d ed. 1999). For example, initials and rubber stamps are sufficient. “A letterhead can be a signature, except that if the Statute says ‘subscribed,’ instead of ‘signed,’ some courts have held that the writing must be signed at the end.” *Id.*

476. *Id.* at 211. Many contracts are expressed in multiple, detached documents and if only one of them is signed, the statute is satisfied if the detached documents are incorporated by reference. Absent that, “there is basic disagreement as to what constitutes a sufficient connection permitting the unsigned papers to be considered as part of the statutory memorandum.” *Henry L. Fox Co. v. William Kaufman Org., Ltd.*, 512 N.Y.S.2d 851, 853 (N.Y. App. Div. 1987), *rev’d*, 74 N.Y.2d 136 (1989). “Even when this is not true, the unsigned document is part of the memorandum if the documents by internal evidence refer to the same subject matter or transaction.” CALAMARI & PERILLO, *supra* note 475, at 211.

477. CALAMARI & PERILLO, *supra* note 475, at 187. The theories advanced to justify the rule are (1) “[i]f the parties intend[ed] the writing to be final and complete, they intend to supersede their prior agreements”; (2) “sound policy requires that prior and contemporaneous oral agreements are suspect” if not included in the writing, and (3) that “the writing deserves

relevant to electricity contracts where there are numerous preformation statements, warranties, assertions, and statements that may induce entry and execution of a power sale agreement by a party. Just looking at the Enron bankruptcy, one can see that representations of a company's financial status can be misleading. Whether these exchanges are or are not evidentiary in determining the exact obligations undertaken by a party to a contract is a matter of the parol evidence rule.⁴⁷⁸

The actual intent of the parties should be sought in determining whether the parties intended total or partial integration.⁴⁷⁹ Even if there is a determination of a total integration, "consistent additional terms" are still admissible at common law (1) if the alleged agreement is made for separate consideration, (2) if the offered additional terms are not within the scope of the integration, or are collateral, or (3) if the offered terms might naturally, ordinarily, or normally be omitted from the writing that does exist.⁴⁸⁰

In deciding whether prior representations constitute part of an electric power deal, the first determination regarding admission of parol evidence is whether the writing represents the final embodiment of all elements of the parties' intended agreement.⁴⁸¹ The final written embodiment of the deal "need not be in any particular form and need not be signed."⁴⁸² Any relevant evidence (even if it is itself parol evidence) is admissible in most jurisdictions to determine this question of fact.⁴⁸³ "[T]he more complete and formal

a preferred status against potential perjury" regarding oral aspects of an alleged agreement. *Id.*

478. *See id.*

479. *See* RESTATEMENT (SECOND) OF CONTRACTS § 209 (1981). "When the parties to a written contract have agreed to it as an 'integration'—a complete and final embodiment of the terms of an agreement—parol evidence cannot be used to add to or vary its terms.... When only part of the agreement is integrated, the same rule applies to that part, but parol evidence may be used to prove elements of the agreement not reduced to writing" *Masterson v. Sine*, 436 P.2d 561, 563 (Cal. 1968); *see also* *N. Am. Sav. Bank v. Resolution Trust Corp.*, 65 F.3d 111 (8th Cir. 1995) (applying Missouri law); *Hathaway v. Ray's Motor Sales, Inc.*, 247 A.2d 512 (Vt. 1968).

480. *See* RESTATEMENT (SECOND) OF CONTRACTS § 209 cmts. b-d.

481. *See* U.C.C. § 2-202 (1989); JOHN D. CALAMARI & JOSEPH M. PERILLO, *THE LAW OF CONTRACTS* 139 (3d ed. 1987) (noting that the Williston and Corbin tests "assert that the existence of a total integration depends upon the intention of the parties").

482. CALAMARI & PERILLO, *supra* note 481, at 143.

483. *See id.*

the instrument is, the more likely it [is] that it is intended as an integration" in written form of the entire agreement.⁴⁸⁴

The U.C.C. embodies another view. The U.C.C. approach "creates a presumption that a writing is only a partial integration. This presumption is overcome if the parties actually intend the writing to be a total integration ..., or if it is *certain* that parties similarly situated would have included the term in the writing"⁴⁸⁵ Exclusion of only those terms that "certainly" would have been included by the parties in the writing is not as limiting a screening tool as that employed by common law precedent.⁴⁸⁶ This means that more parol evidence can be admitted by the court under the U.C.C. than under the rule of common law.⁴⁸⁷

If electricity is deemed a good, more parol evidence in the making of the deal can be admitted than if electricity is deemed a service, because the court will consider the contract under the more generous U.C.C. parol evidence rule. In addition to parol evidence,

484. *Id.* Once it is determined that a writing is a final embodiment of the deal, the second question is whether the writing is complete so that it is a total integration, exclusive of parol evidence. *Id.* at 145. Williston, Corbin, and the U.C.C. have articulated distinct views on this question. Professor Williston's view has three rules. First,

[i]f the writing expressly declares that it contains the entire agreement of the parties in what is usually referred to as a merger clause, this declaration conclusively establishes that the integration is total unless the document is obviously incomplete or the merger clause was included as a result of fraud or mistake.

Id. at 147 (citations omitted). His second rule states, "[i]n the absence of a merger clause, the determination [of whether the writing is a total integration] is made by looking to the writing. Consistent additional terms may be proved if the writing is obviously incomplete on its face" *Id.* at 148 (citations omitted). Williston's third rule states, "[w]here the writing appears to be a complete instrument expressing the rights and obligations of both parties, it is deemed a total integration" *Id.*

A varying approach in determining the completeness of a writing is Professor Corbin's view. Professor Corbin "is determined to search out the actual intention of the parties" on the issue of intended total integration rather than searching for some objective or presumed intent. *See id.* at 149. He states that "all relevant evidence," including parol evidence, should be taken into account in making this threshold determination. *Id.* Thus, he would admit evidence of prior negotiations. Furthermore, he states that a merger clause is only one of the factors to be considered in determining whether there is a total integration.

485. CALAMARI & PERILLO, *supra* note 475, at 189; *see also* *Cosmopolitan Fin. Corp. v. Runnels*, 625 P.2d 390-95 (Haw. Ct. App. 1981) (holding that the U.C.C. permits consideration of a "wider range of extrinsic evidence" to determine the actual intent of the parties).

486. *See Cosmopolitan Fin. Corp.*, 825 P.2d at 395.

487. *See id.* (noting that the U.C.C. standard allows the court to consider more evidence).

the court can always consider evidence of course of dealing,⁴⁸⁸ course of performance,⁴⁸⁹ and trade usage⁴⁹⁰ in interpreting a U.C.C. contract.⁴⁹¹ One's past conduct and industry norms constantly inform interpretation of any U.C.C. deal.⁴⁹²

If a U.C.C. contract is not complete and exclusive, but only a final embodiment of the deal, consistent additional terms and evidence can be admitted to interpret the contract.⁴⁹³ "When the parties to a written contract have agreed to it as an 'integration'—a complete and final embodiment of the terms of an agreement—parol evidence cannot be used to add to or vary its terms."⁴⁹⁴

The U.C.C. will permit a party to use the parties' conduct, their past dealings, and industry norms to gain a favorable interpretation of a contract. This allows "context" evidence not always admissible under the common law and creates an exception to the parol evidence bar to interpret contract intent and language ambiguities in an electricity contract for sale of goods.

3. Contract Formation

The law surrounding electric contract formation and indefiniteness also differs significantly between the U.C.C. and the common law. Indefiniteness is a basis to negate enforcement of an otherwise properly formed contract.⁴⁹⁵ Indefiniteness can occur when parties

488. See U.C.C. § 1-205(3) (1989).

489. See *id.* § 2-208 cmt. 1.

490. See *id.* § 1-205(5). The U.C.C. defines "usage of trade" as "any practice or method of dealing having such regularity of observance in a place, vocation or trade as to justify an expectation that it will be observed with respect to the transaction in question." *Id.* § 1-205(2).

491. *Id.* § 2-202(a).

492. See *id.*

493. *Id.* § 2-202(b). What is "consistent" is a matter of different interpretation in the courts. See CALAMARI & PERILLO, *supra* note 481, at 155.

494. *Masterson v. Sinc*, 436 P.2d 561, 563 (Cal. 1968). "When only part of the agreement is integrated, the same rule applies to that part, but parole evidence may be used to prove elements of the agreement not reduced to writing." *Id.* Certain courts hold that the test of admissibility of extrinsic evidence to explain the meaning of a written instrument is not whether the instrument appears to the court to be plain and unambiguous on its face, but whether the offered evidence is relevant to prove a meaning to which the language of the instrument is reasonably susceptible. *Pac. Gas & Elec. Co. v. G.W. Thomas Drayage & Rigging Co.*, 442 P.2d 641, 645-46 (Cal. 1968).

495. See CALAMARI & PREILLO, *supra* note 481, at 53.

leave material terms open or not fully specified.⁴⁹⁶ This will occur when market participants do not completely explicate all key terms in an electricity sale negotiation and transaction.⁴⁹⁷

First, the common law approach the Restatement (Second) of Contracts, requires mutual assent for contract formation.⁴⁹⁸ "The manifestation of mutual assent to an exchange ordinarily takes the form of an offer or proposal by one party followed by an acceptance by the other party."⁴⁹⁹

A term need not be set forth with the utmost specificity; it is enough that the agreement is sufficiently clear for the court to determine the respective obligations of the parties.⁵⁰⁰ Indefiniteness (uncertainty) problems arise in three categories: (1) "[w]here the parties have purported to agree upon a material term but left it indefinite (not reasonably certain)," (2) "[w]here the parties are silent as to a material term," and (3) "[w]here the parties have agreed to agree later as to a material term."⁵⁰¹

In the first situation, when the parties have purported to agree on a material term but have left it indefinite, common law provides

496. See *id.*; see also *Soar v. Nat'l Football League Players' Ass'n*, 550 F.2d 1287, 1290 (1st Cir. 1977) ("While an enforceable contract might be found in some circumstances if one or more of such questions were left unanswered, ... the accumulation in the instant case of so many unanswered questions is convincing evidence that there never was a consensus *ad idem* between the parties.").

497. See *CALAMARI & PERILLO*, *supra* note 481, at 53; see also *Hill v. McGregor Mfg. Corp.*, 178 N.W.2d 342, 553-55 (Mich. Ct. App. 1970).

498. See *RESTATEMENT (SECOND) OF CONTRACTS* § 22 (1989).

499. *Id.* § 22(1); see also *id.* § 22(2).

500. See *CALAMARI & PERILLO*, *supra* note 481, at 53. According to the *RESTATEMENT (SECOND) OF CONTRACTS* § 33(2) (1981): The terms of a contract are reasonably certain if they provide a basis for determining the existence of a breach and for giving an appropriate remedy. The Restatement states that "[e]ven though a manifestation of intention is sought to be understood as an offer, it cannot be accepted so as to form a contract unless the terms of the contract are reasonably certain." *Id.* § 33(1). "The fact that one or more terms of a proposed bargain are left open or uncertain may show that a manifestation of intention is not intended to be understood as an offer or as an acceptance." *Id.* § 33(3). What constitutes "reasonable certainty" depends on "the subject-matter of the agreement, the purpose for which it was entered into, the situation and relations of the parties, and the circumstances under which it was made." See *Marcor Hous. Sys., Inc. v. First Am. Title Co.*, 584 P.2d 86, 88 (Colo. Ct. App. 1978) (quoting *Ward v. Ward*, 30 P.2d 853 (Colo. 1934)).

501. *CALAMARI & PERILLO*, *supra* note 481, at 54; see also *Lawrence v. Jones*, 864 P.2d 194, 197-98 (Idaho Ct. App. 1993) (holding that indefinite nature of material security provision made contract unenforceable); *Werner v. Norwest Bank S. Dakota*, 499 N.W.2d 138, 141 (S.D. 1993) (finding no contract existed because of the lack of essential terms). However, omitting a non-material term does not imperil an otherwise properly formed contract.

no room for judicial implication or gap-fillers and, therefore, the agreement is void.⁵⁰² In the second situation, when the parties are silent as to a material term, "there is a strong possibility that a term may be implied from surrounding circumstances or supplied by a court using a gap-filler."⁵⁰³ In the third situation, when the parties agree to agree, "[t]he traditional rule is that an agreement to agree ... does not result in a binding contract."⁵⁰⁴ Some courts enforce agreements to agree, or at least require good faith efforts of the parties to agree subsequently.⁵⁰⁵

This formalistic common law approach differs greatly from the U.C.C. standard. The U.C.C., as to indefiniteness, provides that "a contract for the sale of goods may be made in any manner sufficient to show agreement, including conduct by both parties which recognizes the existence of such a contract."⁵⁰⁶ Furthermore, "[e]ven though one or more terms are left open a contract for the sale does *not* fail for indefiniteness if the parties have intended to make a contract and there is a reasonably certain basis for giving an appropriate remedy."⁵⁰⁷ In other words, under the U.C.C., the court can cure the indefiniteness on any reasonable basis and enforce the contract.

Also under the U.C.C., an agreement for electricity sale which is otherwise sufficiently definite to be a contract is not made invalid by the fact that it leaves particulars of performance to be specified by one of the parties.⁵⁰⁸ This allows contracts in which price, quantity, or other material terms in an electric sale can be subject to contingencies or one party's specifications. However, any such specifications "must be made in good faith and within the limits set

502. See CALAMARI & PERILLO, *supra* note 481, at 54-55.

503. *Id.* at 56.

504. *Id.* at 63. Because the parties have manifested an intention to fill the gap themselves, the gap-filler mechanism may not be used.

505. See *id.* at 63-65 (discussing modern case law).

506. U.C.C. § 2-204(1) (1989). The official comment to U.C.C. section 2-204 states: "The more terms the parties leave open, the less likely it is that they have intended to conclude a binding agreement, but their actions may be frequently conclusive on the matter despite omissions."

507. *Id.* § 2-204 (emphasis added).

508. *Id.*; see also *Southwest Engineering Co. v. Martin Tractor Co.*, 473 P.2d 18 (Kan. 1970) (holding that even the absence of a fairly important term, such as the terms of payment does not necessarily make a contract fatally indefinite).

by commercial reasonableness.⁵⁰⁹ The use of any quantity estimate in an agreement becomes the midpoint of a reasonable quantity range for sale of electricity.⁵¹⁰ It will be typical that many electricity contracts are "requirements contracts" where the quantity will be determined by the reasonable needs of the buyer. Thereunder, the buyer would take its electric quantity exclusively from the supplier.

4. Option Contracts

Option contracts and a variety of hedge "put" and "call" options characterize electricity markets. Options create opportunities to buy or supply electricity. The U.C.C. and common law differ in their treatment of option contracts.

Option contracts create an offer irrevocable for a period of time.⁵¹¹ An offer can be made irrevocable or an option created by mutual consideration, by statute, or by part performance or tender of performance under an offer for a unilateral contract, under the doctrine of promissory estoppel or by a sealed instrument.⁵¹² Irrevocable offers may be "terminated by lapse of time, death or destruction of a person or thing essential for the performance of the contract and supervening legal prohibition of the proposed contract."⁵¹³

509. U.C.C. § 2-311(1).

510. *Id.* § 2-305(1). Section 2-305 of the U.C.C. is a specific provision which deals with the indefiniteness of a contract price. It states:

The parties if they so intend can conclude a contract for sale even though the price is not settled. In such a case the price is a reasonable price at the time for delivery if (a) nothing is said as to price; or (b) the price is left to be agreed by the parties and they fail to agree; or (c) the price is to be fixed in terms of some agreed market or other standard as set or recorded by a third person or agency and it is not so set or recorded.

Id. § 2-305(1). Subsection 2 states that "[a] price to be fixed by the seller or by the buyer means a price for him to fix in good faith." *Id.* § 2-305(2). However, subsection 4 holds that when the parties intend not to be bound unless the price be fixed or agreed and it is not fixed or agreed there is no contract. *Id.* § 2-305(4).

511. *See Harden v. Dep't of Taxes*, 352 A.2d 685, 687 (Vt. 1976) (stating that an option is merely an agreement to hold open a specific offer to a specific party for a stated time).

512. *See CALAMARI & PERILLO, supra* note 481, at 121-22.

513. *Id.* at 124 (citing RESTATEMENT (SECOND) OF CONTRACTS §§ 35A, 48 cmt. d (3d ed. 1987)).

Under the majority common law position, option electricity contracts need new, mutual, and distinct consideration to be enforceable.⁵¹⁴ The U.C.C., however, empowers an offeror to create an irrevocable offer for the sale of goods without consideration.⁵¹⁵ Under the U.C.C.:

The requisites are ... (a) the offeror must be a merchant; (b) the offer must be in a signed writing; (c) if the language of irrevocability is on a form supplied by the offeree, the offeror must sign twice—once to make the offer and once more to separately sign the clause providing for irrevocability; (c) the writing must contain language of irrevocability; (e) the period of irrevocability may not exceed three months.⁵¹⁶

Without separate consideration (or estoppel), the common law in a majority of jurisdictions states that an option is gratuitous and that an offer is not irrevocable and may be withdrawn.⁵¹⁷ Electricity options, therefore, require separate mutual consideration if electricity is deemed a service. The U.C.C. does not require such mutual consideration.

514. That is because an option contract must meet the normal requirements for the formation of a contract. See RESTATEMENT (SECOND) OF CONTRACTS § 25 (1981).

515. The U.C.C. states: "An offer by a merchant to buy or sell goods in a signed writing which by its terms gives assurances that it will be held open is not revocable, for lack of consideration, during the time stated or if no time is stated for a reasonable time," but not to exceed three months. U.C.C. § 2-205 (1989).

516. CALAMARI & PERILLO, *supra* note 475, at 118. Official Comment 3 to U.C.C. section 2-205 states:

This section is intended to apply to current "firm" offers and not to long term options, and an outside time limit of three months during which such offers remain irrevocable has been set. The three month period during which firm offers remain irrevocable under this section need not be stated by days or by date. If the offer states that it is "guaranteed" or "firm" until the happening of a contingency which will occur within the three month period, it will remain irrevocable until that event. A promise made for a longer period will operate under this section to bind the offeror only for the first three months of the period but may of course be renewed. If supported by consideration it may continue for as long as the parties specify. This section deals only with the offer which is not supported by consideration.

517. CALAMARI & PERILLO, *supra* note 481, at 122.

5. Acceptance

What constitutes a valid “acceptance” of an electricity contract also varies between the common law and the U.C.C. Contracts require a procedural two-step choreography: With a valid acceptance of an offer, a contract is formed.

The Restatement (Second) of Contracts states that “[a]cceptance of an offer is a manifestation of assent to the terms thereof made by the offeree in a manner invited or required by the offer.”⁵¹⁸ At common law in many jurisdictions, “[a]n offer can be accepted by the rendering of a performance only if the offer invites such an acceptance” (i.e. unilaterally).⁵¹⁹ Unless stated otherwise, “it is essential to an acceptance by promise either that the offeree exercise reasonable diligence to notify the offeror of acceptance or that the offeror receive the acceptance seasonably.”⁵²⁰

At common law, in many jurisdictions it matters whether an offer contemplates a bilateral or unilateral contract.⁵²¹ The acceptance must be by promise or by conduct as appropriate under the terms of the offer.⁵²² Thus, words or conduct matter precisely as dictated by the type of offer. The U.C.C. differs from the common law Restatement in that the U.C.C. allows that any offer to enter into contract “shall be construed as inviting acceptance in any manner and by any medium reasonable in the circumstances” (by words or performance).⁵²³ This eliminates the common law bilateral/unilateral distinction because either words or conduct can be appropriate under the circumstances to manifest an acceptance for a U.C.C.-governed contract.

6. Additional Terms

The Restatement (Second) of Contracts and the U.C.C. greatly differ in their treatment of additional or varying terms inserted by

518. RESTATEMENT (SECOND) OF CONTRACTS § 50(1).

519. *Id.* § 53(1).

520. *Id.* § 56.

521. See CALAMARI & PERILLO, *supra* note 481, at 78 (discussing varying jurisdictional views). The necessity of giving notice is less obvious if the offer proposes a “unilateral” contract and invites acceptance by means of performance and not a promise. See *id.* at 78-79.

522. See RESTATEMENT (SECOND) OF CONTRACTS § 32.

523. U.C.C. § 2-206(1)(a) (1989).

an offeree into an acceptance, in response to the terms of an offer. The majority common law position requires an acceptance to be substantially a mirror image of the offer.⁵²⁴ The common law also requires that the manner and mode of acceptance is reasonable and as reliable as the mode of communication of the offer.

The Restatement (Second) of Contracts states that "[a] reply to an offer which purports to accept but is conditional on the offeror's assent to terms additional to or different from those offered is not an acceptance, but is a counter-offer."⁵²⁵ "An offeree's power of acceptance is terminated by his making of a counter-offer, unless the offeror has manifested a contrary intention."⁵²⁶ Thus, at common law, strict technical conformance in substance, mode, and manner of an acceptance is critical to forming a contract.⁵²⁷ Additional terms, therefore, cannot be inserted into an agreement by the offeree as part of the acceptance, as they instead void any formation of the agreement under the common law.

The U.C.C. has a very different and more flexible approach. It provides that:

A definite and seasonable expression of acceptance or a written confirmation which is sent within a reasonable time operates as an acceptance even though it states terms additional to or different from those offered or agreed upon, unless acceptance is expressly made conditional on assent to the additional or different terms.⁵²⁸

524. See CALAMARI & PERILLO, *supra* note 481, at 101-02.

525. RESTATEMENT (SECOND) OF CONTRACTS § 59; see also *In re Pago Pago Aircrash*, 637 F.2d 704, 706 (9th Cir. 1981); *Rorvig v. Douglas*, 873 P.2d 492, 495 (Wash. 1994) (en banc). "A counter-offer is defined as an offer made by an offeree to his offeror relating to the same matter as the original offer and proposing a substituted bargain differing from that proposed by the original offer." RESTATEMENT (SECOND) OF CONTRACTS § 39(1).

526. RESTATEMENT (SECOND) OF CONTRACTS § 39.

527. See CALAMARI & PERILLO, *supra* note 481, at 101-02; see, e.g., *Gyurkey v. Babler*, 651 P.2d 928, 931 (Idaho 1982); *Wagner v. Rainier Mfg. Co.*, 371 P.2d 74, 77 (Or. 1962).

528. U.C.C. § 2-207(1). For there to be an effective definite expression of acceptance, there must be an offer on the table. If the initial document is the seller's price quotation, subject to acceptance by the buyer, there is no offer. Such provisions bode ill for the seller in the battle of the forms. If the buyer follows up with a purchase order, the latter will be deemed the offer. See, e.g., *Brown Mach. v. Hercules, Inc.*, 770 S.W.2d 416, 419 (Mo. Ct. App. 1989); *McCarty v. Verson Allsteel Press Co.*, 411 N.E.2d 936, 943 (Ill. App. Ct. 1980).

Thus, between nonmerchants, as in a retail electricity sale, the other additional terms are mere proposals for additional terms, which are not incorporated unless subsequently assented to by the offeror. This would apply to a transaction where at least one consumer/nonmerchant was involved in an electricity contract. Between two or more merchants,⁵²⁹ such as characterizes a wholesale electricity transaction, such additional terms become part of the contract automatically unless the parties materially alter it, unless the offeror initially limits acceptance to the express terms, or after seeing such terms “seasonably”⁵³⁰ objects.⁵³¹ Also, if conduct by both parties recognizes the existence of a contract, such contract is sufficient for a transaction in goods under the U.C.C. to “establish a contract for sale although the writings of the parties do not otherwise establish a contract.”⁵³²

It is, therefore, much easier to form an electricity sale contract under the U.C.C., notwithstanding nonconforming terms in the acceptance. Imprecise acceptance may still form a contract, but one must then sort through the resulting substantive terms of the deal.

7. Modification

Rules on modification are yet another area where the U.C.C. and common law conflict. For modification, the common law majority opinion holds that new mutual consideration is required for each

529. The U.C.C. defines a “merchant” as:

a person who deals in goods of the kind or otherwise by his occupation holds himself out as having knowledge or skill peculiar to the practices or goods involved in the transaction or to whom such knowledge or skill may be attributed by his employment of an agent or broker or other intermediary who by his occupation holds himself out as having such knowledge or skill.

U.C.C. § 2-104.

530. “An action is taken seasonably if it is taken at or within the time agreed or if no time is agreed at or within a reasonable time.” *Id.* § 1-205(b). A reasonable time for taking an action “depends on the nature, purpose, and circumstances of the action.” *Id.* § 1-205(a).

531. U.C.C. section 2-207 states:

The additional terms are to be construed as proposals for addition to the contract. Between merchants such terms become part of the contract unless: (a) the offer expressly limits acceptance to the terms of the offer; (b) they materially alter it; or (c) notification of objection to them has already been given or is given within a reasonable time after notice of them is received.

Id. § 2-207(2).

532. *Id.* § 2-207(3).

such modification.⁵³³ Therefore, a change in an electricity services contract is not enforceable unless it is supported by new mutual consideration. Under the common law minority position, "consideration is only a test of the enforceability of executory promises"⁵³⁴

Under the U.C.C., however, agreements modifying a contract need no new consideration to be binding.⁵³⁵ Such modification can be oral.⁵³⁶ The U.C.C. provides that for the modification (with or without consideration) to be effective, it must be signed in two situations: (1) where the agreement as modified is required to be in writing under the statute of frauds,⁵³⁷ and (2) where a writing is required under section 2-209(2).⁵³⁸ Under the U.C.C. a signed contract that states that it cannot be modified or rescinded except by a signed writing will be honored, notwithstanding that such a provision is contrary to the common law.⁵³⁹ Separate signature of

533. See RESTATEMENT (SECOND) OF CONTRACTS § 273 (1981). Any "peppercorn of consideration" is sufficient:

[A]ny consideration for the new undertaking, however insignificant, satisfies this rule.... For instance, an undertaking to pay part of the debt before maturity, or at a place other than where the obligor was legally bound to pay, or to pay in property, regardless of its value, or to effect a composition with creditors by the payment of less than the sum due, has been held to constitute a consideration sufficient in law.

Levine v. Blumenthal, 186 A. 457, 459 (N.J. 1936) (citations omitted); see also Ray v. Metro. Life Ins. Co., 858 F. Supp. 626, 628 (S.D. Tex. 1994) (finding address requirement for non-renewal notice had been modified by practice); Mulberry-Fairplains Water Ass'n v. N. Wilkesboro, 412 S.E.2d 910, 915 (N.C. Ct. App. 1992) (noting that "unlike common law, a modification under Article 2 needs no new consideration to be binding").

534. Angel v. Murray, 322 A.2d 630, 634 (R.I. 1974).

535. U.C.C. § 2-209(1) ("An agreement modifying a contract within this Article needs no consideration to be binding.").

536. See *id.* § 2-209 cmt. 3 (warning, however, that oral modifications are limited by the statute of fraud).

537. See *id.*; *id.* § 2-201 (statute of frauds).

538. U.C.C. section 2-209(2) provides: "A signed agreement which excludes modification or rescission except by a signed writing cannot be otherwise modified or rescinded, but except as between merchants such a requirement on a form supplied by the merchant must be separately signed by the other party." *Id.* § 2-209(2). The clause that starts with the words "except as between merchants," describes a situation where a merchant sends a form that contains the provision excluding oral or unsigned modifications or rescissions. In such a case, a nonmerchant who signs the form at the bottom is not bound by the provision unless, in addition, the nonmerchant signs the clause separately. See *id.* § 2-209 cmt. 3. If the case involves two merchants, no separate signature is required. *Id.*

539. U.C.C. section 2-209(4) is an exception to this rule, which provides that "[a]lthough an attempt at modification or rescission does not satisfy the requirements of subsection (2) ... it can operate as a waiver." *Id.* § 2-209(4). Thus, even if the modification is not a signed

this specific limitation of oral amendment must be accomplished in a consumer contract under the U.C.C.⁵⁴⁰

B. Warranties, Breach, and Remedies

1. Course of Performance

How one conducts oneself in the early stages of performance of an electricity sales agreement sets a pattern that is significant in interpreting remaining performance obligations. The effect of course of performance in a contract varies somewhat between the U.C.C. and the common law.

Under the common law applied to services, the threshold for interpreting course of performance⁵⁴¹ is implicated “[w]here the agreement involves repeated occasions for performance by either party with knowledge of the nature of the performance and opportunity for objection to it by the other, any course of performance accepted or acquiesced in without objection is given great weight in the interpretation of the agreement.”⁵⁴²

The U.C.C. creates an interpretive hierarchy. The U.C.C. statutorily provides that express terms shall “control” course of performance,⁵⁴³ and that course of performance shall “control”

writing it can still operate as a waiver. *See id.* The normal rule with respect to a waiver is that a waiver is retractable unless there is an estoppel. *See id.* § 2-209(5).

540. Compare U.C.C. section 1-306 which provides that any “claim or right arising out of an alleged breach may be discharged in whole or in part without consideration” by a written waiver or renunciation signed and delivered by the aggrieved party. *Id.* § 1-306. This section makes consideration unnecessary to the effective renunciation or waiver of rights or claims arising out of an alleged breach of a commercial contract where such renunciation is in writing and signed and delivered by the aggrieved party. *Id.*; *see* JOSEPH M. PERILLO, CALAMARI AND PERILLO ON CONTRACTS § 11.33 (5th ed. 2003). CALAMARI & PERILLO, *supra* note 475, at 149.

541. Course of performance is prior conduct of a party in performing earlier elements of the subject agreement.

542. RESTATEMENT (SECOND) OF CONTRACTS § 202 (1981). Section 2-208(1) of the U.C.C. uses the same language, except it states:

Where an agreement involves repeated occasions for performance by either party with knowledge of the nature of the performance and opportunity for objection to it by the other, any course of performance accepted or acquiesced in without objection shall be relevant to determine the meaning of the agreement.

U.C.C. § 2-208(1) (1989) (repealed 2001).

543. *See* section 203(b) of the Restatement (Second) of Contracts which uses the phrase

course of dealing or usage of trade.⁵⁴⁴ Thus, under a contract, stated terms dominate past conduct under the instant agreement (course of performance), which in turn dominates conduct under past deals (course of dealing), which in turn dominates industry norms (usage of trade)—but all, in order of hierarchy, can be employed to interpret obligations if electricity is deemed to be a good.⁵⁴⁵

As Calamari and Perillo noted:

At early common law, in order to establish a usage, including a trade usage it had to be (1) legal, (2) notorious, (3) ancient or immemorial and continuous, (4) reasonable, (5) certain, (6) universal and obligatory. Under the U.C.C., the trade usage need not be ancient or immemorial or universal or certain. Reasonableness is also eliminated and substituted is a requirement against “unconscionable contracts and clauses.”⁵⁴⁶ Instead of being notorious, the U.C.C. requires that the usage have regularity of observance ... with respect to the transaction in question.⁵⁴⁷

Under the U.C.C., conduct of the parties, and within the industry generally, constantly informs the parties’ performance obligations with electricity goods. With electricity services, under the common law, conduct and industry practices are less dispositive.

2. Assurances

The California crisis illustrates that performance insecurity and breach are major issues in some deregulated electricity markets.⁵⁴⁸ The right to seek assurances also has different requirements at common law and under the U.C.C. Under the Restatement (Second) of Contracts, where the *obligee* has “reasonable grounds

“given greater weight” versus the term “control” in U.C.C. § 2-208(2) (repealed 2001).

544. See U.C.C. § 2-208(2).

545. “A course of dealing and course of performance can be established by the testimony of the parties.... Trade usage, however, is usually proved by expert witnesses.” CALAMARI & PERILLO, *supra* note 475, at 198.

546. CALAMARI & PERILLO, *supra* note 475, at 169.

547. *Id.*

548. See *supra* Part I.

... to believe that the obligor will commit a breach by non-performance ... the obligee may demand adequate assurance of due performance....⁵⁴⁹ The demand need not be in writing.”⁵⁵⁰ The obligee may treat the obligor’s failure to provide assurance within a “reasonable time” as a repudiation.⁵⁵¹ There is no limit on what may be interpreted as “reasonable.”

The U.C.C. also allows a demand for assurance, but its treatment varies from the common law in that when reasonable grounds for insecurity arise with respect to performance, *either party* may in writing demand adequate assurance of due performance.⁵⁵² Comment 3 to U.C.C. section 2-609 states that:

Three measures have been adopted to meet the needs of [both parties] in such situations under the U.C.C. First, the aggrieved party is permitted to suspend his own performance and any preparation therefor, with excuse for any resulting necessary delay, until the situation has been clarified.... Secondly, the aggrieved party is given the right to require adequate assurance that the other party’s performance will be duly forthcoming.... [F]inally, this section provides the means by which the aggrieved party may treat the contract as broken if his reason-

549. RESTATEMENT (SECOND) OF CONTRACTS § 251 (1981).

550. *Id.* § 251 cmt. d.

551. *See id.* § 251.

(1) Where reasonable grounds arise to believe that the obligor will commit a breach by non-performance that would of itself give the obligee a claim for damages for total breach under § 243, the obligee may demand adequate assurance of due performance and may, if reasonable, suspend any performance for which he has not already received the agreed exchange until he receives such assurance. (2) The obligee may treat as a repudiation the obligor’s failure to provide within a reasonable time such assurance of due performance as is adequate in the circumstances of the particular case.

Id.

552. *See* U.C.C. § 2-609 (1989). The court in *Pittsburgh-Des Moines Steel Co. v. Brookhaven Manor Water Co.*, 532 F.2d 572, 581 (7th Cir. 1976), held that “to trigger applicability of the statute ... the expectation of due performance on the part of the other party entertained at contracting time no longer exists because of reasonable grounds for insecurity arising.”

able grounds for insecurity are not cleared up within a reasonable time.⁵⁵³

Such reasonable time may not exceed thirty days.⁵⁵⁴

3. *Standards of Performance*

Whether performance under a contract needs to be exact or merely substantial depends upon defining an electricity sale as a common law transaction in services or a U.C.C. transaction in goods. The majority common law opinion holds that express conditions and implied-in-fact conditions must be fully performed, but constructive conditions need only be substantially performed where the performance obligation is on the obligee.⁵⁵⁵ Substantial performance and material breach are the opposite sides of the same coin.⁵⁵⁶ If a party has substantially performed, any breach by this party can only be nonmaterial.⁵⁵⁷ Conversely, if a party has committed a material breach, this party's performance cannot be substantial.⁵⁵⁸ Thus, if one party has not yet performed at all, substantial performance has not been rendered, but a material breach has not necessarily occurred.⁵⁵⁹

553. U.C.C. § 2-609 cmt. 2. Implicit in this notion is that the insecurity must be based on matters not known to the party demanding assurance at the time of the contracting, and as to which the risk was not assumed. *See* *Field v. Golden Trianble Broad., Inc.*, 305 A.2d 689, 696-97 (Pa. 1973) (finding "no change in circumstances" to justify "reasonable grounds for insecurity"). Additionally, "'suspend performance' under this section means to hold up performance pending the outcome of the demand, and includes also the holding up of any preparatory action." U.C.C. § 2-609 cmt. 2.

554. *See* U.C.C. § 2-609(4).

555. *PERILLO*, *supra* note 540, § 11.13.

556. *See id.* § 11.18.

557. *See id.*

558. *See id.*

559. *See id.*

[T]o ascertain whether or not a breach is material the factors to be considered are: (1) to what extent, if any, the contract has been performed at the time of breach. The earlier the breach the more likely it will be regarded as material. (2) A willful breach is more likely to be regarded as material than a breach caused by negligence ...; (3) A quantitatively serious breach is more likely to be considered material.

Id. Courts will also consider the consequences for both the breaching and aggrieved parties relating to hardship and damages. *See id.*

Substantial performance is only recognized and legally significant under the common law.⁵⁶⁰ Under the common law, it is often meaningless to “restitute” or give back services already delivered. Therefore, substantial performance is a reasonable level of performance where mutual restitution of a service is not feasible. Substantial performance short of complete performance is still a breach, but a nonmaterial breach.⁵⁶¹

The U.C.C. provides, however that “if the goods or the tender of delivery fail in any respect to conform to the contract, the buyer may (a) reject the whole; or (b) accept the whole; or (c) accept any commercial unit or units and reject the rest.”⁵⁶² This so-called “perfect tender” rule is directly contrary to the common law concept of substantial performance, but is undermined by exceptions and qualifications. The seller has a countervailing right to cure defective performance within a reasonable time that is always at least as long as the time for performance if performance occurs before the specified time,⁵⁶³ or upon failure to make an effective rejection,⁵⁶⁴ or upon the buyer’s acceptance of the goods.⁵⁶⁵

560. “[T]here can be no recovery on the contract as distinguished from *quantum meruit* unless there is substantial performance. This is undoubtedly the correct rule at common law.” *Plante v. Jacobs*, 103 N.W.2d 296, 298 (Wis. 1960).

561. “[W]hen a covenant goes only to part of the consideration on both sides and a breach may be compensated for in damages, it is to be regarded as an independent covenant, unless this is contrary to the expressed intent of the parties.” *Hanks v. GAB Bus. Serv., Inc.*, 644 S.W.2d 707, 708 (Tex. 1982) (quoting *World Broad. Sys., Inc. v. Eagle Broad. Co.*, 162 S.W.2d 463, 465 (Tex. Ct. App. 1942)).

562. U.C.C. § 2-601 (1989).

563. *See id.* § 2-508. If a nonconforming tender is made,

and the time for performance has not yet expired, the seller may seasonably notify the buyer of [the seller’s] intention to cure and may then within the contract time make a conforming delivery. (2) Where the buyer rejects a nonconforming tender which the seller had reasonable grounds to believe would be acceptable with or without money allowance the seller may if he seasonably notifies the buyer have a further reasonable time to substitute a conforming tender.

Id.

564. *See id.* § 2-605. Section 2-605 of the U.C.C. also limits the power of the perfect tender rule, by providing that in order to make an effective rejection, the buyer must seasonably notify the seller of the rejection and state all defects that are discoverable by reasonable inspection. *Id.*

565. *See id.* § 2-606. The buyer’s acceptance also impairs the scope of the perfect tender rule. Once a buyer has accepted goods, rejection is no longer possible, although revocation of acceptance may be an available alternative. *See id.* Section 2-606 provides:

(1) Acceptance of goods occurs when the buyer (a) after a reasonable

Revocation of acceptance under the U.C.C. is grounded in material breach rather than in perfect tender. Materiality of the breach under the U.C.C. is based on a personal standard of substantial impairment. Therefore, a "buyer may revoke his acceptance of a lot or commercial unit whose non-conformity substantially impairs its value to [the buyer]."⁵⁶⁶ For purposes of the sale of electricity, traveling at almost the speed of light, tender must be exact and perfect if electricity is a good. Substantial performance is satisfactory if electricity is a service.

4. *Impossibility*

Performance is excused if it is impossible or impracticable. The California example illustrates that chaotic electricity markets will cause parties to look for excuses to justify nonperformance of their obligations.⁵⁶⁷ The common law and the U.C.C. treat the defense of impossibility or impracticability similarly.⁵⁶⁸ The Restatement (Second) of Contracts section 261 states that "[w]here a party's performance is made impracticable without his fault by the

opportunity to inspect the goods signifies to the seller that the goods are conforming or that he will take or retain them in spite of their non-conformity; or (b) fails to make an effective rejection ... but such acceptance does not occur until the buyer has had a reasonable opportunity to inspect them; or (c) does any act inconsistent with the seller's ownership; but if such act is wrongful as against the seller it is an acceptance only if ratified by him. (2) Acceptance of a part of any commercial unit is acceptance of that entire unit.

Id.

566. *Id.* § 2-608. As the comments to this section further elaborate:

For this purpose the test is not what the seller had reason to know at the time of contracting; the question is whether the non-conformity is such as will in fact cause a substantial impairment of value to the buyer though the seller had no advance knowledge as to the buyer's particular circumstances.

Id. § 2-608 cmt. 2. This standard of "substantial impairment" in U.C.C. revocation resembles the standard of performance under the common law.

567. *See supra* Part I.

568. Some courts have tended to treat defenses of impossibility and impracticability as questions of law rather than fact. *See, e.g.,* Cent. Kan. Credit Union v. Mut. Guar. Corp., 102 F. Supp. 1097, 1102 (10th Cir. 1996) (stating determination of existence of performance is question of law); Butler Mfg. Co., Inc. v. Americold Corp., 850 F. Supp. 952, 956 (D. Kan. 1994) (determining whether the doctrines of impracticability or frustration will excuse a breach is a matter of law for the court). *But see* Alimenta (U.S.A.), Inc. v. Cargill, Inc., 861 F.2d 650, 653-54 (11th Cir. 1988) (upholding trial court's decision to send performance impracticability question to jury).

occurrence of an event the non-occurrence of which was a basic assumption on which the contract was made, his duty to render that performance is discharged, unless the language or the circumstances indicate the contrary."⁵⁶⁹ Under the common law, "[w]hen the impracticability of a performance is temporary or partial, the promisor is obligated to perform to the extent practicable unless the burden of performance would be substantially increased."⁵⁷⁰

The U.C.C. enacts statutory rules with respect to temporary and partial impracticability that comport with the common law rule, but the U.C.C. is somewhat more specific.⁵⁷¹ Temporary impracticability under the U.C.C. provides that if the seller expects to be late in tendering delivery of the good and if the lateness is excusable because of the impracticability, the seller must seasonably notify the buyer of the expected delay.⁵⁷² Allocation is the key concept for partial impracticability under the U.C.C. Where the seller's capacity to perform is affected, "he must allocate production and deliveries among his customers but may at his option include regular customers not then under contract as well as his own requirements for further manufacture."⁵⁷³

5. Warranties

One of the most significant differences between the common law of contracts and the U.C.C. is the warranties that automatically

569. RESTATEMENT (SECOND) OF CONTRACTS § 261 (1981). Similarly, the U.C.C. states that: Delay in delivery or non-delivery in whole or in part ... is not a breach of his duty under a contract for sale if performance as agreed has been made impracticable by the occurrence of a contingency the non-occurrence of which was a basic assumption on which the contract was made or by compliance in good faith with any applicable foreign or domestic governmental regulation or order whether or not it later proves to be invalid.

U.C.C. § 2-615(a).

570. CALAMARI & PERILLO, *supra* note 475, at 260.

571. See U.C.C. § 2-615; see also *E. Air Lines, Inc. v. Gulf Oil Corp.*, 415 F. Supp. 429, 438 (S.D. Fla. 1975) (noting the doctrine of impracticability has its roots in the common law but the courts have looked to the U.C.C. for guidance on the doctrine's strict construction).

572. See U.C.C. § 2-615(c) ("The seller must notify the buyer seasonably that there will be delay or non-delivery and, when allocation is required under paragraph (b), of the estimated quota thus made available for the buyer.").

573. *Id.* § 2-615(b).

modify the sale of goods under the U.C.C. These warranties might apply to the quality, quantity, and uniformity of delivered electricity. Quality guarantees can be created implicitly or automatically in a sale of goods under the U.C.C.,⁵⁷⁴ but not for the sale of a service under the common law.

No common law/U.C.C. distinction exists for warranties that are express—that is, a description, affirmation of fact, or promise with respect to the quality or future performance of the goods that becomes part of the basis of the bargain.⁵⁷⁵ The affirmation may be in words or by sample or model.⁵⁷⁶ An affirmation merely of the value of the goods or merely of the seller's opinion of the goods is not a warranty.⁵⁷⁷

Other warranties are implied by law. For example, one automatically implied U.C.C. warranty is a warranty that the goods shall be "merchantable" if the seller is a merchant with respect to goods of that kind, unless the warranty is effectively disclaimed.⁵⁷⁸ Goods to be merchantable must "pass ... under the contract description" and be "fit for the ordinary purposes for which such goods are used."⁵⁷⁹

A second implied U.C.C. warranty is the implied warranty of fitness for a particular purpose.⁵⁸⁰ It is automatically created:

Where the seller at the time of contracting has reason to know any particular purpose for which the goods are required and that the buyer is relying on the seller's skill or judgment to select or furnish suitable goods, there is unless conspicuously excluded or modified ... an implied warranty that the goods shall be fit for such purpose.⁵⁸¹

574. *See id.* § 2-314.

575. *See id.* § 2-313(1) ("It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty").

Id. § 2-313(2).

576. *See id.* § 2-313.

577. *See id.*; *id.* § 2-313 cmt. 8.

578. *See id.* § 2-314(1).

579. *Id.* § 2-314(2).

580. *See id.* § 2-315.

581. *Id.*

Although express warranties, since made as part of the bargain, may not be excluded or modified, implied warranties may: "[T]o exclude or modify the implied warranty of merchantability or any part of it the language must mention merchantability and in case of a writing must be conspicuous"⁵⁸² Therefore, where electricity is deemed a good, failure to provide proper voltage or amounts of electricity could violate an implied warranty unless properly disclaimed.

Section 2-719(2) of the U.C.C. provides that "[w]here circumstances cause an exclusive or limited remedy to fail of its essential purpose, remedy may be had as provided [by the U.C.C.]."⁵⁸³ What this means as a practical matter, is that the limitation of remedies is stricken, and the two implied warranties are reinstated. The U.C.C. further provides that "[c]onsequential damages may be limited or excluded.... Limitation of consequential damages for injury to the person in the case of consumer goods is prima facie unconscionable but limitation of damages where the loss is commercial is not."⁵⁸⁴ Therefore, under the U.C.C., a court will not uphold an attempt by contract to limit personal liability for an electricity tort or injury to the retail consumer. Being too extreme in limiting warranties and remedies can backfire where an intended remedy is rendered nugatory. With the significant public policy considerations surrounding the provision of electricity, such an outcome is possible.

6. Remedies

Damages after-the-fact may not be all that an injured party seeks. Access to a scarce electric commodity may be extremely

582. *Id.* § 2-316(2). Implied warranties can be disclaimed if the buyer is warned by language such as "as is," "with all faults" or similar phrases. *See id.* § 2-316(3)(a). Language to exclude all implied warranties of fitness is sufficient if it states, for example, that "There are no warranties which extend beyond the description on the face thereof." Implied warranties may also be excluded or modified as to discoverable defects if the buyer had an opportunity to fully examine the goods, or by course of dealing or course of performance. *See id.* § 2-316(3)(b)-(c).

583. U.C.C. § 2-719(2).

584. *Id.* § 2-719(3). "[T]o give what looks like relief in the form of an express warranty, but is not, is unconscionable as a surprise limitation and therefore against public policy." *Tuttle v. Kelly-Springfield Tire Co.*, 585 P.2d 1116, 1119 (Okla. 1978).

valuable. A party may gain access to this scarce commodity by invoking equitable remedies, which are available at both common law and under the U.C.C. Remedies at common law serve to protect the expectation, reliance, or restitution interests of a promisee.⁵⁸⁵ One can require specific performance of a contract or enjoin its nonperformance, requiring restoration of a specific thing to prevent unjust enrichment.⁵⁸⁶ Likewise, under the U.C.C., the buyer's right to "[s]pecific performance may be decreed where the goods are unique or in other proper circumstances,"⁵⁸⁷ and "[t]he decree for specific performance may include such terms and conditions as to payment of the price, damages, or other relief as the court may deem just."⁵⁸⁸

In other circumstances, a traditional damages remedy at law is sought for breach of contract. Under common law, the injured party in an electricity transaction "has a right to damages based on his expectation interest as measured by (a) the loss in the value to him of the other party's performance caused by its failure or deficiency, plus (b) any other loss, including incidental or consequential loss, caused by the breach"⁵⁸⁹ These other losses could involve alternative supply of electricity which demand has run up to

585.

Judicial remedies under the rules stated in this Restatement serve to protect one or more of the following interests of a promisee: (a) his "expectation interest," which is his interest in having the benefit of his bargain by being put in as good a position as he would have been in had the contract been performed, (b) his "reliance interest," which is his interest in being reimbursed for loss caused by reliance on the contract by being put in as good a position as he would have been in had the contract not been made, or (c) his "restitution interest," which is his interest in having restored to him any benefit that he has conferred on the other party.

RESTATEMENT (SECOND) OF CONTRACTS § 344 (1981).

586.

The judicial remedies available for the protection of the interests stated in § 344 include a judgment or order (a) awarding a sum of money due under the contract or as damages, (b) requiring specific performance of a contract or enjoining its non-performance, (c) requiring restoration of a specific thing to prevent unjust enrichment, (d) awarding a sum of money to prevent unjust enrichment, (e) declaring the rights of the parties, and (f) enforcing an arbitration award.

Id. § 345.

587. U.C.C. § 2-716(1).

588. *Id.* § 2-716(2).

589. RESTATEMENT (SECOND) OF CONTRACTS § 347 (1981).

100,000 times more expensive than the locked-in contractual terms of trade.⁵⁹⁰

The U.C.C., however, creates distinct remedies available to a seller (as compared to a buyer) and states that one measure of the seller's damages for nonacceptance or repudiation by the buyer is the difference between the market price *at the time and place for tender* and the unpaid contract price together with any incidental damages provided,⁵⁹¹ but less expenses saved in consequence of the buyer's breach.⁵⁹² If this measure of damages "is inadequate to put the seller in as good a position as performance would have done then the measure of damages is the profit (including reasonable overhead) which the seller would have made from full performance by the buyer, together with any incidental damages provided" by section 2-710.⁵⁹³ Alternatively, if the electricity is taken by the buyer or he or she refuses, an action for price is an option.⁵⁹⁴ Alternatively, the seller's damages can be the loss of proceeds of sale of the power.⁵⁹⁵

590. See *supra* Part I.A.

591. U.C.C. section 2-710 states:

Incidental damages to an aggrieved seller include any commercially reasonable charges, expenses or commissions incurred in stopping delivery, in the transportation, care and custody of goods after the buyer's breach, in connection with return or resale of the goods or otherwise resulting from the breach.

U.C.C. § 2-710.

592. See *id.* § 2-708(1).

593. *Id.* § 2-708(2).

594. See *id.* § 2-705 cmt. 1. Section 2-705 states:

The seller may stop delivery of goods in the possession of a carrier or other bailee when he discovers the buyer to be insolvent (Section 2-702) and may stop delivery of carload, truckload, planeload or larger shipments of express or freight when the buyer repudiates or fails to make a payment due before delivery or if for any other reason the seller has a right to withhold or reclaim the goods.

Id. § 2-705(1).

595. See *id.* § 2-706.

Under the conditions stated in section 2-703 on seller's remedies, the seller may resell the goods concerned or the undelivered balance thereof. Where the resale is made in good faith and in a commercially reasonable manner the seller may recover the difference between the resale price and the contract price together with any incidental damages allowed under the provisions of this Article (Section 2-710), but less expenses saved in consequence of the buyer's breach.

U.C.C. § 2-706(1).

More characteristic of California's electricity crisis situation was that sellers did not perform and buyers suffered damages.⁵⁹⁶ Under the U.C.C., buyers have options to cover their nondelivery of power from alternative sources,⁵⁹⁷ obtain a market price set-off,⁵⁹⁸ or obtain a valuation of diminution of value provided.⁵⁹⁹

In the same vein, a buyer's "[i]ncidental damages resulting from the seller's breach include expenses reasonably incurred in inspection, receipt, transportation and care and custody of goods rightfully rejected, any commercially reasonable charges, expenses or commissions in connection with effecting cover and any other reasonable expense incident to the delay or other breach."⁶⁰⁰ Also, a buyer's "[c]onsequential damages resulting from the seller's breach include (a) any loss resulting from general or particular requirements and needs of which the seller at the time of contracting had reason to know ... and (b) injury to person or property proximately resulting from any breach of warranty."⁶⁰¹

596. See *supra* Part I.

597. See *id.* § 2-712(1). "After a breach within the preceding section the buyer may 'cover' by making in good faith and without un reasonable delay any reasonable purchase of or contract to purchase goods in substitution for those due from the seller." *Id.* The Official C'omment to this section states, "[t]his section provides the buyer with a remedy aimed at enabling him to obtain the goods he needs thus meeting his essential need. This remedy is the buyer's equivalent of the seller's right to resell." *Id.* § 2-712 cmt. 1.

598. See *id.* § 2-713.

Subject to the provisions of this Article with respect to proof of market price (Section 2-723), the measure of damages for non-delivery or repudiation by the seller is the difference between the market price at the time when the buyer learned of the breach and the contract price together with an incidental and consequential damages provided in this Article (Section 2-715), but less expenses saved in consequence of the seller's breach.

Id.

599. See *id.* § 2-714.

Where the buyer has accepted goods and given notification (subsection (3) of Section 2-607) he may recover as damages for any non-conformity of tender the loss resulting in the ordinary course of events from the seller's breach as determined in any manner which is reasonable.

Id. § 2-714(1).

600. *Id.* § 2-715(1).

601. *Id.* § 2-715(2). *Hadley v. Baxendale*, 156 Eng. Rep. 145 (Ex. Ch. 1854), is a famous English case in which the court defined two classes of damages as (1) those which any reasonable person should have foreseen, whether or not the defendant actually foresaw them; and (2) those damages due to remote or unusual consequences, but only if the defendant had actual notice of the possibility of these consequences.

The U.C.C. compartmentalizes the types of damage remedies available to either buyers or sellers in a formulistic manner. The “math” of damages is spelled out in the U.C.C. The common law, while embodying a similar concept of expectation, leaves the parties flexibility as to how to calculate damages. Restitutionary measures can be chosen as an *alternative* under common law,⁶⁰² while the U.C.C. allows restitution as an *additional* damage, as long as double recovery is not accomplished.⁶⁰³ A classification of electricity as a good in one jurisdiction and as a service in another jurisdiction may have a significant impact on how contracts for the sale of electricity are decided and the remedies available to the parties.

602. See *supra* notes 585-95 and accompanying text.

603. See U.C.C. § 2-711(1) (providing additive damages).