REGULATORY CONCEPTS, PROPOSITIONS, AND DOCTRINES: CASUALTIES, SURVIVORS, ADDITIONS

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I. INTRODUCTION AND OVERVIEW

A dozen years ago, the author published a paper on the (then) status of some thirty-eight major "Concepts, Propositions, and Doctrines"[1] that historically underpinned public utility regulation in the United States.[2] The idea of the inquiry was to see how many and which ones were "Casualties," "Survivors," or "Modifications" (my typology[3]) in light of the unusual stresses on utility regulation by the various forces culminating in the 1970s and 1980s – *financial* ones like the oil crisis and its aftermath of inflation, slowed productivity, and excess capacity; *institutional* ones like a growing disbelief in the efficacy and effectiveness of commission regulation, concerns about its ability to accommodate to needed change, and even emerging doubts as to whether comprehensive social oversight of the utility sectors was still required; and, of course, the *policy* one of searching for market solutions wherever possible.[4]

The hypothesis was that many of the main ideas and practices of public utility regulation that had served us reasonably well for six decades in the monopoly provision of electricity, natural gas, telecommunications, and water had become casualties of the broad scale disaffection with, and outright attack on, traditional regulation. This fairly pessimistic theme an-

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1. For purposes of this grouping, Concepts here means "key ideas;" Propositions means "guiding statements or rules;" and Doctrines means "fundamental tenets." It is, of course, less important how the regulatory items are grouped in these categories than where they are determined to fall in the Casualties, Survivors, and Modifications typology.

2. Douglas N. Jones, *Regulatory Concepts, Propositions, and Doctrines: Casualties and Survivors*, 22 J. OF ECON. ISSUES, 1089 (1988).

3. Distinctions intended in these headings are that "Survivors" means "still with us *in large part,*" "Casualties" means "*mainly* lost," and "Modifications" means "*substantially altered* but still around." "Additions" are those that have come on the regulatory scene (mostly) in the past decade. Due to the vast universe of concepts, propositions, and doctrines that are examined, at this time these additions total forty-seven.

4. *See generally* WILLIAM G. SHEPHERD, PUBLIC POLICIES TOWARD BUSINESS, Chapter 12 (8th ed. 1991).

ticipated few survivors and the rest as modifications. The theme had the effect of weakening, rather than strengthening, administrative regulation. In fact, the findings of that research effort were mixed at best and partially contradicted the hypothesis.[5] Of the thirty-eight items considered, only eight were outright casualties (e.g., regulatory lag, used and useful concepts) with the rest either fully surviving (e.g., obligation to serve, judicial review) or continuing with modifications (e.g., management prerogatives, regulatory bargain). Such results did not support pronouncements about the demise of public utility regulation. Its staying power as of 1988 seemed to remain considerable.

Now, with a dozen more years of experiences to examine, it is perhaps useful to revisit the topic, with the same approach, to find what can be said currently of the status of those concepts, propositions, and doctrines – those that earlier survived or were modified, as well as new additions to the list.[6] "Additions" are those that have come on the regulatory scene, mostly in the past decade, and because of this the universe of concepts, propositions, and doctrines that are examined this time numbers forty-seven. It is recognized, of course, that the listing of the "main ideas and practices" that surround public utility regulation is inherently judgmental, but the presumption here is that most would be included on anyone's list.

The same hypothesis, a notable weakening of commission regulation, was adopted for the present inquiry in the belief that the developments of the intervening decade clearly were in the direction of further dismantling the traditional apparatus of social oversight. This time there were nine more Casualties, only five Survivors, and twenty-one Modifications which taken together tend to confirm the hypothesis.[7]

A fair assessment therefore, may be that commission regulation has "gone sideways" in terms of missions, apparatus, and activities at the same time that it has retrenched in terms of direct intervention and consumer protection.[8]

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5. *See generally* Jones, *supra* note 2, at 1091. *See also* Table 2.

6. *See generally* Table 1.

7. If, however, the "Additions" to the main ideas and practices in utility regulation that have come to the fore in recent years are included in the Survivors category, a somewhat different story appears. With nine new concepts, two new propositions, and two new doctrines, the total number of items (as mentioned) is forty-seven. Upon examination the distribution of Casualties, Survivors and Additions, and modifications now more closely approximates the results of a dozen years ago in percentage terms.

8. Such a conclusion would have to be modified if the recent meltdown of the deregulatory experience in California results in: (1) reintroduction of commission oversight of the more traditional kind; (2) continuing intervention in response to consumer outcries for safeguards against extreme market volatility, rather than a quick fix; (3) spreading of the difficulty to neighboring states; and (4) arresting of the restructuring movement elsewhere. In the instant case of California, we have already seen in the fashioning of a response, major direct state and federal intervention (like the state becoming a power broker and the federal government ordering continuation of fuel supply deliveries), commission use of interim rate relief to ease the financial plight of the companies, and various calls for more price caps, disallowance of certain costs, redesign of bidding procedures, and (possibly) profit controls and prudence reviews. Also, several states that have new restructuring laws are examining whether this could happen to them. Four states that were set to begin deregulation of the electrics are

II. THE CASUALTIES

Virtually all of the nine concepts (e.g., revenue requirement standard), propositions (e.g., exclusive franchise), and doctrines (e.g., no undue discrimination) classified as new casualties are the result of the accelerated efforts this past decade to introduce competition wherever possible as a substitute for comprehensive commission oversight. Four of these casualties are basic concepts, one a fundamental proposition, and three are familiar doctrines. They are considered in the order in which they appear in Table 1.

A. Concepts

The mainstay of traditional regulation of monopoly utilities was the *revenue requirement standard.* Here all the financial elements of a company's production of kilowatts or thermal units came together in the grand regulatory equation, $RR = O + r(V - D)$.[9] Embedded in it are the expenses, the investment, the profitability rate, and the accounting treatments that result in the total amount of revenues to be annually collected by the utility. Changes in that total (RR) were the bases of most general rate cases over the decades, with the matter of just how a utility allocates the revenue burden among the several classes of customers left largely up to them.[10] The revenue requirement concept is now a casualty because of the paradigm shift to reliance on competition and the concomitant near abandoning of profit, price, and cost control by commissions, where price caps and incentive mechanisms are used.[11] Overcollections and undercollections are presumed to be temporary problems at most and promptly sorted out by workably functioning markets.

The idea of *cost disallowance* was always a protection against a utility incurring unnecessary expenses in the conduct of its business and in a "cost plus" environment passing those costs on to ratepayers. Commissions invoked this authority most often over issues of intracorporate transactions (e.g., coal or gas purchases from subsidiary units; payments to their "service corporations" for such things as legal or research support services) and external contract arrangements thought to be extravagant (e.g., unusually high union wage settlements or litigation expenditures). When the focus on cost in the provision of utility services was paramount, fairly strict

considering delay (Nevada, Arkansas, New Mexico, and Oklahoma). There is reportedly now some reluctance to move further toward retail access until the California outcome becomes clearer. Kenneth Rose, *The California Electric Restructuring Experience*, speech at the National Conference of State Legislatures AFI/ASI Joint Winter Meeting (Dec. 13, 2000), *available at* http://www.nrri.ohio-state.edu/roseken.htm.

9. For a textbook exposition of the regulatory equation see CHARLES F. PHILLIPS, JR., THE REGULATION OF PUBLIC UTILITIES, at Chapter 9 (Public Util. Reports 3d ed. 1993).

10. Commissions did give a lot of attention to rate design in the early years of regulation, and various creative tariff structures were devised.

11. The recent California debacle and the policy response to it admittedly calls into question this characterization of regulatory retrenchment. The revenue requirement standard is retained in the water sector.

attention to which costs were "allowable" and which were not made eminent good sense. This was a quite workable regulatory practice in that commissions properly presumed managerial good faith on the part of utilities over a wide range of activity. Only when there was an "abuse of discretion" or clearly "improvident" spending did commissions generally intervene.

Now, with the near-disappearance of general rate cases where cost issues are debated,[12] with the wide-spread use of market-based rates where costs are the providers' problem, and with trusting that markets will effectively operate to police any inflating of costs, commission use of the disallowance lever is largely over.[13]

A concept that fell out of the Modifications list and into the Casualties list is the *historical test year.* A key ingredient in determining the annual revenue requirement, it provided the actual booked costs experienced for the most recent year. Its advantages were considerable certainty about the cost data and (in non-inflationary times) a reasonable basis on which to estimate utility revenue needs for the coming period. Diminished regulatory interest in costs and the passing of the revenue requirement standard together with the increasing acceptance of trended costs, rolling costs, and incremental costs in utility calculations of various kinds as being more reflective of reality has been its downfall.[14]

Two controversial concepts that entered the regulatory setting in the late 1980s, peaked in their salience in the 1990s, and largely exited by decade's end were demand-side management (DSM) and its sister acronym, least-cost utility planning (LCUP).[15] Having mostly conservation origins, but with some considerable roots in efficiency considerations, the idea was to broaden the analysis of how to satisfy energy needs from the traditional emphasis on building capacity to include the newer notion of dampening demand, preferably in such a way as to avoid construction of additional plants. Both DSM and LCUP also involved widened participation of interested parties, a pluralistic process to accomplish it, and some new methodologies that were brought to bear on the analysis.[16] Commissions, prodded by considerable marketing efforts by proponents, were fairly receptive to the concepts. Utilities were less so, but generally acquiesced.

DSM and LCUP as operative concepts had virtually vanished from

12. While data on the number of rate cases (and associated hearing days) before public utility commissions are no longer collected nationally, virtually all commissioners report a sharp drop when speaking to the point of changes in public utility commission (PUC) operations.

13. Interestingly, there could be a kind of revival of this concept where a company occasionally seeks relief from a price freeze which it finds does not generate expected revenue, as in California, where electric utilities are experiencing a severe financial bind in the face of unexpectedly high wholesale power costs.

14. Of course, to the extent that alternative forms of utility regulation, like price caps, require periodic true-ups, costs actually experienced by a company may come back into play.

15. Neither of these concepts was included in the author's 1988 inquiry.

16. Special Feature, *The Next Frontier for Integrated Resource Planning and Demand-Side Management*, THE ELECTRICITY J. Jan.-Feb. 1993, at 44-51.

the scene by the late 1990s. Some of their precepts had been accommodated into practice, but their demise had more to do with the pronounced turn toward competition and away from detailed regulation, lowered cost structures on the supply side, sustained economic prosperity in macro terms, and an underlying disinclination to fully embrace planning as a culturally acceptable idea.

B. Propositions

In large measure, what made the utility a monopoly in the first place was the adoption of the proposition that the best way to provide its service was by the awarding of an *exclusive territorial franchise* and then regulating its behavior in the public interest. In the 1980s, the advent and spread of cogeneration, independent power producers, small scale hydro facilities, non-utility generators, and the like, together with the introduction of various auction schemes (such as competitive bidding) for new supply, substantially eroded geographic exclusivity for electric companies. Similarly, with the publishing of Federal Energy Regulatory Commission (FERC) Order Numbers 436 and 500 in 1985, and Order 636 in 1992, natural gas purchase and transport became increasingly competitive in a restructured industry characterized by de-integration and customer choice. The full flowering of these forces came in the 1990s with national and state legislation,[17] commission,[18] and court decisions encouraging, and sometimes requiring, competition in the electric and natural gas sectors. The "exclusive franchise" proposition has been relegated to the Casualty list.

A related proposition is the oft-cited *regulatory bargain* in the regulation of public utilities (the other major one, from the point of view of the utilities, being reasonable assurance of recovery of their investments). Sometimes referred to as a "contract" or a "compact," the idea originally was that a bargain was struck between the utilities and the regulators (and indirectly with ratepayers). The nature of the agreement was that in exchange for an exclusive franchise and some certainty in recouping its investment, the utility submits to the commission oversight of prices, profitability, and service standards.[19]

Again, as public policy this decade has drastically altered the monopoly status of utilities, and generally removed pricing and earnings constraints, it is fair to view "the regulatory bargain" as abrogated to the point

17. Federal statutes include the Energy Policy Act, Pub. L. No. 102-486, 106 Stat. 2399 (1990); The Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996). Over a dozen states have followed suit with restructuring legislation of their own.

18. Examples on the energy side are: Order 636, *Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation; and Regulation of Natural Gas Pipelines After Wellhead Decontrol*, F.E.R.C. STATS. & REGS. ¶ 30,939 and Order No. 888, *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, F.E.R.C. STATS. & REGS. ¶ 31,036 (1992).

19. For a textbook treatment, see Phillips, *supra* note 9, at 21.

of shifting its standing from the Modifications category to the Casualties.[20]

C. Doctrines

The long-standing ratemaking doctrine prohibiting *undue discrimination* in the pricing of utility services has effectively gone by the board as well. Often the bane of economic, legal, and accounting analyses in applying the standard, it nonetheless served to rationalize tariffs, constrain deep discounting to preferred customers, and furthered equity considerations in a monopoly context. In the new environment of relaxed oversight, flexible pricing, and "meeting the competitive demands of the market" discriminatory pricing is the rule, resulting in rate differences often so sharp as to make it unlikely that many would pass the "undue" test, if administered. Expanded use of Ramsey Pricing schemes and related demand-driven approaches is a special force in this direction.[21]

The doctrine of the ratepayers' entitlement to pay only for investments and expenditures *prudently incurred* by utility management was a Survivor at last writing, but is now a Casualty. The regulators' use of the prudence test peaked in the 1980s, occasioned by a great upsurge in construction cost overruns, plant abandonments, and substantial excess capacity.[22] In part discouraged by those experiences (and certainly informed by them), in part in recognition of new alternative supply sources and manageable demand growth, and in part in the face of the restructuring of the generation and transmission segments of the industry, the 1990s saw little construction. Concerns that the prudence test might be invoked against large expenditures on certain environmental technologies did not materialize and, in any event, the turn to market competition in power generation made the doctrine largely moot.[23]

Finally, it is here concluded that the bedrock doctrine on which the superstructure and apparatus of governmental regulation of utilities were built, *regulation as a proxy for competition*, is now a Casualty. Identified in the Modifications list a dozen years ago, the progress of the public policy change toward reliance on markets at both state and federal levels has turned the relationship on its head—competition as a substitute for regulation. To be sure, commission regulation still has much to do, especially in the complex transition from monopoly provision of utility services to com-

20. Peter A. Bradford, *A Regulatory Compact Worthy of the Name*, THE ELECTRICITY J. Nov. 1995, at 12-16.

21. "Ramsey Pricing" is a theory favored by many economists that allows the recovery of common costs by assigning such costs (and pricing the services) in proportion to the inverse price elasticity of demand of each customer class. The markets that face the least competition (residential service) are allocated the most cost.

22. ROBERT BURNS ET AL., THE PRUDENT INVESTMENT TEST IN THE 1980S, NRRI 84-16 (1984).

23. While not a claim at this writing, it is at least possible that a charge of imprudence might arise in the current California circumstance of an extreme supply/price squeeze. One could imagine the argument being made that utility managers failed to act prudently in the provision of reliable and affordable power in light of what was known and knowable at the time.

petitive supply. Additionally, it continues to have many non-financial missions like quality of service, safety and reliability, consumer education, welfare, and environmental protection. However, the prevalence of new legislation that not only allows commissions to employ competitive solutions but also prescribes that they actually induce them while dismantling financial regulation, taken together with court decisions in the same direction, has effectively emasculated the force of this original tenet.

Allowing the initial doctrine to be posed in simplistic fashion (i.e., regulation as a proxy for competition) was always a dangerous step, because it too narrowly described what the public actually expected of commission oversight. More was at stake than approximating only what well-functioning utility markets might produce by way of levels of prices, profits, and supplies. Admirable as markets can be in these regards, they may be ill-suited for meeting broader social goals that were entrusted to activist, and enlightened public utility commissioners and their staffs.[24] Busy legislators, often with little appreciation of the complexities and subtleties of administrative regulation, tended to see the reversal, competition as a substitute for regulation and as a straightforward one which had the additional advantages of "furthering free enterprise, innovation, and the entrepreneurial spirit," and of reducing intrusive government.[25]

III. THE SURVIVORS (AND ADDITIONS)

The dramatically new directions taken in public utility regulation over the decade of the 1990s were underpinned by a whole cluster of new Concepts (nine), new Propositions (three), and new Doctrines (two). [26]

A. *Concepts*

Central to a number of concepts that accompany the introduction of competition in the energy sectors is *unbundling*. Utility services and pricing thereof traditionally were offered in bundled fashion and at single prices. Thus in electricity, for example, generation, transmission, and distribution services were lumped together in one price to the customer. In natural gas, the services of pipeline transport and delivery were indistinguishable from ancillary services of gas acquisition, storage, flow management, and billing from the point of view of the end user. Now the notion is that separating the services into discreet components will allow separate pricing for each and, therefore, the chance for competition, customer

24. For a discussion of this point *see generally* MARTIN T. FARRIS & ROY J. SAMPSON, PUBLIC UTILITIES: REGULATION, MANAGEMENT, & OWNERSHIP, Chapter 22 (1984).

25. That the transition is not straightforward but instead perilous with all sorts of pitfalls and setbacks along the way is becoming increasingly evident. Surely the most dramatic case to date is the California experience which has resulted in calls for outright reregulation, the FERC and United States DOE intervention, making the state government a power purchasing agent, emergency rate relief, and the pronouncement by several players that the deregulation experiment for electricity is dead in that state.

26. See Table 1.

choice through the entrance of new providers, and finally more efficient prices overall. At the broadest level, unbundling is separating generation from transmission from distribution for the electrics, and separating lifting and aggregating gas in the field from the transport and distribution functions. Accomplished first at the federal level and originally focused on the wholesale component, states have been encouraged to pursue further unbundling of services to the retail level.[27] Large business customers have been the first to benefit, and the effort now in many states is to try to make unbundling work at the small commercial and residential customer level. Specific examples include the opportunity to choose a gas supplier, various ancillary services like gas storage, and (more recently) an electric supplier.

Proponents of unbundling in the utility sectors see virtually no limits to the concept. Skeptics, however, cite a myriad of real and potential downsides.[28] Importantly, these include high transaction costs, subsidization (cost shifting) between core and non-core customers, reliability concerns and quality of service deterioration, the loosening of obligation-to-serve rules, and damage to universal service. Finally, it must be noted that a counter-development of "repackaging" (read bundling) may well emerge to arrest the blind pursuit of ever-finer slicing of service categories, as customers return to expressing their preferences for simplicity and the minimizing of transaction costs to them.

Three pricing concepts that flow directly from unbundling are *rate rebalancing, revenue neutrality,* and *market-based rates. Rate rebalancing* takes place when utility rates are brought more in line with real costs, with the effect of lessening cross-subsidies. Examples are reducing the customer charge and increasing the demand charge or the energy charge closer to the marginal cost in the case of tariff construction; letting the utility adjust its prices upward to offset sales losses in pursuit of a consensus conservation goal; and raising rates to agricultural customers while decreasing them to another customer class (or, of course, adjustments among Commercial, Industrial, and Residential customers generally). When this is authorized to be done such that the utility recovers the same amount of money, *revenue neutrality* has been achieved.

Market-based rates presume not only that services are unbundled but also that the price is unregulated. Again, the idea is to have rates that better approximate marginal costs. Current examples might be generation rates, electric and gas spot market rates, and gas prices at the wellhead. In fact, consumers often may pay prices that are a mixture of market-based rates and regulated rates where there are intermediate transactions before reaching the end user.[29]

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27. For natural gas, see Mohammad Harunnuzzaman & Sridarshan Koundinya, *Cost Allocation and Rate Design for Unbundled Gas Services*, NRRI Q. BULL., Spring/Summer (2000), at 331-49; for electricity, see Harry Trebing, *Electricity: Changes and Issues*, REV. OF INDUST. ORG., at 17:61-74 (2000).

28. *Id.*

29. For example, the field price of natural gas may be unregulated, but the transportation rate may be regulated; similarly with electric generation versus transmission.

Two other pricing concepts under the new regulatory system are *price caps* and Long Run Incremental Cost (LRIC). Made famous in the mid-1980s in the regulation of British Telecom and migrating to the United States in the late 1980s (first at the FCC and then spreading to some three-fourths of the states in local exchange carrier regulation), *price caps* are billed as an improvement on traditional rate base rate-of-return regulation.[30] The improvement is supposed to derive from breaking the link between costs and prices, investments and earnings, and from inducing efficiency and lessening the need for commission oversight. Maximum price schedules are set for various telephone services which are often grouped into "baskets" and companies can then price up to these caps with the caps themselves changing from time to time in response to an indexing formula.[31]

Billed as an "interim step," a "way station" toward the nirvana of full competition and market-determined rates, the price cap phenomenon instead seems a rather permanent part of the regulatory landscape with occasional new extensions (or retrenchments) as experience dictates.[32]

Problems with the price cap methodology broadly employed include: (1) getting the base right in the beginning; (2) the appropriateness of the index in tracking actual changes in the industry; (3) the danger of accounting manipulations, like using too generous depreciation rates; (4) difficulties in distinguishing between efficiency improvements attributable to the utility and those of the economy at large; (5) frequent losses in the quality of service as cost reductions to boost profits are either too great or poorly targeted; and (6) high implementation and monitoring costs (contrary to promises made during their advocacy). Moreover, since utility regulation still takes place in a political arena, the actual operation of price caps can result in earnings that are deemed excessive and sometimes higher than the case under rate base regulation.[33] Also, price caps are typically fully reviewed after a specified period of years (often five), and to do this properly requires a detailed inquiry very similar to a general rate case of the "old" kind. In short, price cap regulation is increasingly acknowledged to be not really a truly radical alternative to rate-of-return regulation but an important alteration. Which upon close examination is less different than originally thought. This has allowed some to describe it as "rate base regulation with a lag."

30. Edythe S. Miller, *Economic Regulation & Social Contract*, 28 J. OF ECON. ISSUES, at 800-05 (1994).

31. The most commonly used index is the CPI and the now-famous formulation for price cap adjustments is CPI - X, where X is a productivity factor attributable to the utilities sector.

32. NEW ENGLAND ISO, *Market Monitoring, Reporting, and Market Power Mitigation*—Market Rule 17, at 9, (filing posted Nov. 1, 2000 and approved by the NEEPOOL Participants Committee), *available at* http://www.isone.com/FERCfilings/documents/MKTRULES index.html.

33. Kenneth Rose, *Price Cap Regulation: Some Implementation Issues*, NRRI Q. BULL., Dec. 1991, at 493-502.

For many decades regulators resisted the use of marginal cost analysis in their regulatory proceedings, strongly preferring instead the use of average, historical, or embedded cost approaches.[34] Not until the 1980s were marginal cost notions occasionally considered, and then primarily for planning purposes (e.g., capacity expansion) and in implementing the "avoided cost concept" in rate design.[35] That changed with the unbundling of telecommunications services and the policy shift to encouraging competition in this industry. Marginal cost calculations, particularly *long run incremental cost* analysis, have become important and more common. However, the difficulty in performing them continues and comparable inroads have not been made in applying the methodology to the energy sectors.

Perhaps the most controversial concept to enter the regulatory language of the 1990s is that of *stranded costs*. Sometimes called "stranded assets" or "transition costs," they can be defined as costs that have been incurred by a utility to serve its customers and which were being recovered in rates but are no longer fully recoverable due to the availability of lower priced alternative suppliers.[36] In other words, the utility assets no longer have an economic or market value equal to their accounting or embedded value. With billions of dollars at stake, not surprisingly, utilities claim that they are "entitled" to complete recovery, often citing the "regulatory compact" with regulators or the "takings clause" of the Constitution.[37] This position was generally accepted by the FERC and subsequently by some two-dozen states (either through public utility commission (PUC) action or legislative mandate).[38]

The debate continues, however. Neither commission practice, court decisions, nor economic policy ever contemplated that utilities be insulated from all risk. The regulatory bargain itself was designed primarily to protect consumers from utility abuse, not the other way around. Recovery of the utility investment was only "reasonably assured" and not guaranteed under all eventualities. Opponents to stranded cost recovery cite the fact that it blunts utility incentives to lower costs toward meeting competition while at the same time acts as a barrier to entry.[39] Further, they see it as

34. Edwin Rosenberg, *A Note on the Concept and Application of Long-Run Incremental Cost in Telecommunications,* NRRI 94-26 (1994). Analysis of marginal costs in a public utility context focuses on the cost of an additional unit of product or service (kw, Btu). The approach can be applied to the generation, transmission, or distribution components in energy supply; to demand, energy, or customer costs in tariff making; to the finding and lifting of field gas, pipeline transport, and delivery. Marginal costs are short run or long run (all inputs variable) and are always forward looking. The idea of marginal cost has always been used in designing minimum rates and establishing a price floor in arguments about predation.

35. The passage of PURPA in 1978 was a major spur to much of this activity.

36. Kenneth Rose, AN ECONOMIC AND LEGAL PERSPECTIVE ON ELECTRIC UTILITY TRANSITION COSTS, NRRI 96-15 (1996).

37. *Id.* at Chapter 3.

38. *See generally* Order No. 888, *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, F.E.R.C. STATS. & REGS. ¶ 31,036 (1996).

39. *See generally* Rose *supra* note 36, at Chapter 5.

creating a major asymmetry between risks and rewards, insulating the utility from downside loss from competition, but allowing the incumbent company to reap potentially substantial gains from a broader use of market-based rates, especially under performance-based regulation that typically accompanies a restructured industry.

One concept which several states, notably California, New Jersey, and Pennsylvania, have employed to deal with stranded cost recovery is *securitization*. This is effectively a refinancing scheme whereby a utility is permitted to create a bond, proceeds from the sale of which become an up front, lump sum payment for the amount of stranded costs a utility has and backing for which is a revenue stream from customers pledged to pay the interest and principal. When provided through legislation (usually as part of an electric industry restructuring bill), there is seen to be at least an implied promise that the state ultimately would stand behind such bonds.[40]

The last new concept identified is the idea of *default customers*, the non-choosing customers who do not make any specific choice of an energy supplier when offered the opportunity to do so.[41] At first glance this would seem to present no problem, and in fact the incumbent supplier typically argues that not choosing is a choice in itself which should be honored by leaving such customers with it.[42] There can be a problem, however, because when two-thirds to three-fourths (or more) customers do not explicitly choose a supplier, as has commonly been the case so far in utility industry restructuring, there is serious question whether competition is actually happening. Additionally, there is serious danger of underwriting a dominant market share for the incumbent, not through competitive performance, but merely through inheritance. Commissions have at least three options when dealing with these situations: (1) assign the default customers to the incumbent or its affiliate; (2) random assignment to the several providers on the basis of either the market share of each after the choosers have chosen or in the same proportion as each received among the choosers; or (3) conduct an auction among the suppliers, who would bid for blocks of non-choosers, regionally aggregated.[43]

Both the second and third options are more consistent with the goal of developing competition than automatically donating the majority of the existing customers to the incumbent utility. However, the issue, and thus

40. The main benefits of securitization (aside from solving the transition cost question for the utility) come mostly from the opportunity for the company to replace its higher cost debt with lower cost debt. Critics of the concept cite the inflexibility of the arrangement, the lengthy duration (ten years in the California case), and the extreme difficulty in forecasting correct amounts where small changes in the assumptions (e.g., future prices) can result in large changes in the financial outcome. Kenneth Rose, *Securitization of Uneconomic Costs: Whom Does It Secure?*, PUB. UTILS. FORT., June 1, 1997, at 32-37.

41. For a good discussion on non-choosing customers, see Electric Competition: Market Power, Mergers, and PUHCA: Oversight Hearing Before House Subcomm. On Energy and Power, 106th Cong. (1999) (testimony of Kenneth Rose) [hereinafter Kenneth Rose].

42. *Id.*

43. Kenneth Rose, *supra* note 41.

the concept, is probably a transient one in that brand loyalty and inertia may decline over time as information and experiences increase.

B. *Propositions*

Three new Propositions in utility regulation are *open access, codes of conduct* (in affiliate transactions), and *transparency.* Except for occasional court rulings for refusals to wheel electric power,[44] the proposition that transmission and distribution facilities, networks or pipelines, should be characterized by *open access* was not part of the policy landscape until the advent of utility industry restructuring. It was immediately clear that for any approximation of workable competition to take hold in the energy and telecommunication industries, it would be essential to overcome the problem posed by incumbent owners of the grid systems. Ready and unencumbered availability of wholesale and retail lines of incumbent carriers under arrangements of fair compensation is the object. Requiring that owners of these essential facilities behave in the "unnatural way" of allowing full and seamless access to competitors, so that the market shares of the former are reduced, is a tall order indeed. The courts, the Congress, the FERC, and the state commissions are going to extraordinary lengths to accomplish it.[45]

Prior to the de-monopolization of utility services, the "standard of conduct" for utility companies was simply to provide safe, reliable, and nondiscriminatory service at affordable prices for all who requested it. Now public utility commissions increasingly are devising *codes of conduct* for incumbent providers to prevent or mitigate the leveraging of their power derived from incumbency.[46] The idea is that, in the course of industry restructuring, certain transactions between the utility and its affiliates need to be restrained, lest the incumbent use its dominant position to favor its affiliates and actively disadvantage would-be competitors.[47] Very real entry barriers can be raised in this manner through intracorporate dealings, like capitalizing on brand names and logos by extending them (or their close likeness) to marketing affiliates, loaning out technical and management staff, cost and profit shifting, and providing inside information and leads on customers.[48] Already nearly a cliché, *transparency* has become the watchword for what now is being done in regulation by way of organizational structures, system operations, price determination, and regulatory procedures. Initially thought of in process terms (i.e., openness, under-

44. *See generally* Otter Tail Power Co. v. United States, 410 U.S. 366, 381 (1973).

45. *See generally supra* note 17.

46. *See generally* Order No. 889, *Open Access Same-Time Information System (Formally Real-Time Information Networks) and Standard of Conduct*, F.E.R.C. STAT. & REGS. ¶ 31,035 (1996).

47. Over half the state commissions have considered the branding question for telecommunications companies and about ten have done so in each of the energy sectors. *See generally* Charles J. Ogletree Jr., Et Al., *Utility Affiliates: Why Restrict Use of Logos?*, PUB. UTILS. FORT., July 15, 1999, at 38; and Douglas N. Jones, *Utility Marketing Affiliates: A Survey of Standards on Brand Leveraging and Codes of Conduct*, PUB. UTILS. FORT., Nov. 15, 1998, at 40-45.

48. For an interesting view of this relationship, see Kim G. Bruno, *Should Affiliate Marketers Be Treated as Insiders?*, 21 ENERGY L.J. 465 (2000).

standability, and fairness), the proposition is now applied across the board to the provision of the maximum amount of information in a timely, clear fashion by producers, marketers, transmission operators, and pipeline transporters. The overall goal is to keep transaction costs low in the context of encouraging workably competitive markets.

C. *Doctrines*

Finally, there is a set of Doctrines that have survived and been further developed. Identified here are two Additions and three Survivors. Clearly the most significant new doctrine in public utility regulation is that of *competition.* The policy decision to not only allow competition but to actively provide for it and induce it at all possible opportunities is perhaps aptly described in the nature of a paradigm shift, as a sea change event.[49] Reliance on market solutions and workable competition instead of comprehensive and sustained governmental oversight in the public utility field intended to simulate the beneficial results of competition is, of course, a profound development. For our purposes, in this analysis of concepts, propositions, and doctrines it creates many casualties and modifications for the prior regime while introducing many additions to the new one.

Before competition there really was no doctrine of the *supplier of last resort.* The monopoly provider was the supplier of first resort and last resort. In point of fact, the doctrine of universal service, now in our Modifications column, took care of the matter. With the advent of multiple providers of utility services, many of whom may be resellers and marketers without an actual plant of their own, and in the case of natural gas perhaps operating without really owning the commodity, the prospect of frequent or lengthy supply shortages or outages became worrisome to regulators. Reliability in these essential services called for some back-up arrangement and the "logical" party to look to was the incumbent, and usually already dominant utility. Thus, statutes and commission rules dealing with competition in the energy and communications sectors typically name such an entity as the supplier of last resort. Attending that designation are interesting issues of capacity availability, paying for stand-by service, administrative costs of getting off and back on the system, and fair pricing for all of these.

The three Survivor doctrines sketched here are *judicial review, fairness and equity* considerations, and the *public interest. Judicial review* continues as a bedrock survivor of regulatory change, as is expected. The focus or subject matter of judicial review has perhaps shifted some with the transition to increasing reliance on competition. As mentioned, constitutional arguments about "takings" have been put forth in the course of debates over whether and how much to compensate utilities for stranded costs.[50] Also, in a few states the issue has arisen as to whether a PUC has

49. The literature here is vast, but an excellent review of events is in Alfred E. Kahn, *Deregulation: Looking Backward and Looking Forward*, 7 YALE J. ON REG. 325-54 (1990).

50. *See generally* Rose, *supra* note 36, at 55-58.

the authority to deregulate a sector without specific legislation directing it to do so.[51] Further, it can be expected that issues of anticompetitive behavior, hence antitrust actions, will be more common as administrative decisions in the area are reviewed by federal or state courts.

Of Bonbright's eight tests of a sound public utility rate structure, the *fairness* criterion was one of the "three primary tests."[52] Indeed, fairness both as to process and as to outcome has always been central to commission regulation. This was especially necessary during the long period where regulation of natural monopolies was the rule, and pursuit of the public interest was the intended result. A current worry has been whether fairness and equity considerations are still primary in light of the turn toward efficiency through market solutions in utility sectors. Recent research done by the author suggests that at least public utility commissioners, if not other players, still consider the fairness criterion as dominant, even in a head-to-head choice with the efficiency test.[53] For this reason, the fairness doctrine remains in the Survivors list.

The *public interest* doctrine in regulation has also survived. This is true despite competing explanations of regulation, like interest group and capture theories, occasional major lapses in its pursuit, academic and journalistic attacks on the theory itself by public choicers and others, and a societal preoccupation with the private interest coupled with near cynicism about the notion of the common good.

Commissions are better staffed and organized, and have responded to the shift toward light-handed regulation by transforming themselves consistent with changed missions and authorities, different skill mixes, and altered procedures.[54] Commissions themselves are better prepared and more expert at developing and using higher powered analyses in decision-making. Governors and presidents have been generally serious about the appointment process and commission finances (budgets) have noticeably increased (though they may now plateau).[55] Commissioners are less adjudicatory and more policy-oriented than earlier, however, they still strive for outcomes that give no single party its way entirely, but each compromise the competing interests of shareholders, management, utility customers, and the public at large, which was the intent of the administrative regulation in the first place.

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51. Georgia and Nebraska are examples where the question was formally raised.

52. Cited in Phillips, *supra* note 9, at 435, and here paraphrased as: (1) simplicity ease of administration; (2) clarity of interpretation; (3) effectiveness in yielding the revenue; (4) revenue year to year; (5) stability of rates themselves; (6) fairness in apportionment of the costs among different consumers; (7) avoidance of undue discrimination; and (8) efficiency in discouraging wasteful usage.

53. Douglas N. Jones and Patrick C. Mann, *Fairness and Public Utility Regulation: Does Fairness Still Matter?*, J. OF ECON. ISSUES (forthcoming, Mar. 2001).

54. Douglas N. Jones, *Public Utility Commissions At 2000: Mixed Mission, Clear Challenge*, PUB. UTILS. FORT., Feb. 15, 1995, at 44-47; and more recently, David Wirick Et Al., Organizational Transformation: Ensuring the Relevance of Public Utility Commissions, NRRI 98-06 (1998).

55. *See generally* Wirick, *supra* note 54, at Chapter 7.

IV. MODIFICATIONS

In the 1988 review there were eighteen concepts, propositions, and doctrines in the Modifications list. This time twenty-one are identified, twelve "old ones" that have been further altered but are still operative, and nine "new ones." After classification, the ratio among the three groupings was nearly the same as last time.

A. Concepts

The four concepts that appeared before and have experienced further modification are *natural monopoly, average cost methodology, interim rate relief,* and *yardstick regulation.* It is, of course, the redefining of what is and is not a *natural monopoly* in the utility sectors that is the basis of the watershed events of the last two decades in the public policy shift from comprehensive social oversight to reliance on markets wherever possible. In the electric sector, the recognition of traditional bottleneck facilities in the transmission segment, and to a significant degree in the distribution segment, as having natural monopoly characteristics, continues. It is in the generation component where the concept has eroded. In natural gas, the pipeline and local distribution facilities largely retain their monopoly features with traditional suppliers now often opting to be transporters only, leaving the commodity ownership to affiliated companies and resellers. It seems worth noting that the reaggregation of utility power through megamergers and acquisitions—often justified on grounds of necessary size that would allow further scale and scope economies—could be seen as not entirely inconsistent with the old rationale for allowing natural monopoly. Whatever the "naturalness" of monopolies in these industries, the staying power of the incumbent utility in fending off effective competition was wildly underestimated by legislators, regulators, judges, and many scholars.

The traditional dominance of *average cost methodologies* in utility regulation has further yielded to one or another marginal cost concept. Earlier disfavored by regulators (except for some utility capacity expansion calculations), incremental cost approaches have now broken through, particularly in telecommunications pricing.[56] Cheered by the economics profession and consultants, and surely more consistent with the move toward competitive markets, this development is less well received by those who benefited historically from "system averaging" through, for instance, rural and urban subsidy patterns.

An important concept employed by regulators to handle the problem of utility undercollections is *interim rate relief.* It has long been recognized that there could be occasional unforeseen circumstances where a sharp rise in utility expenses would place the company in financial straits if it had to wait until the next rate case for revenue relief. An interim order by the commission was a handy fix until the detailed merits of the matter could be

56. *See generally* Rosenberg, *supra* note 34.

fully thrashed out in a subsequent hearing. This concept is retained in the Modifications category, even though it should rarely be used in the changed environment of flexible pricing allowed utilities, continued existence of automatic adjustment clauses to minimize revenue shortfalls, and the (presumably) lessened obligation of commissions to keep every utility whole when competition is the rule. Its use in the recent California circumstance indicates that commissions will still rescue utility companies if the stakes are considered high enough.

Yardstick regulation was a concept that came into vogue in the public power versus private power debates of earlier decades. Comparative costs and prices were the focus, and the idea was that public power had a restraining effect on private utilities through the force of invidious comparisons. It fell into relative disuse when the ideological struggles subsided and more business-like relations evolved, like including public power entities in power pools in the interest of system-wide reliability. Recently, the term has been revived to find use in various incentive schemes that benchmark utility performance against other firms or against itself over time as standards of measure.

Four concepts newly modified are those of the *captive customer, cost-based ratemaking, tariffs,* and *quasi-judicial proceedings.* The notion of the *captive customer* has moved from the Survivor category in light of both policy developments and the emergence of some competitive alternatives for certain services and certain classes of customers. Larger customers increasingly can shop or self-supply, because utilities separate customers into core and non-core, and services into basic and enhanced. Choices are appearing, but not in a way and to an extent that regulators can abandon their protection of residential and small business users in these sectors.

Regulation historically has been preoccupied with costs on the theory that utility rates should be *cost-based.* Cost-of-service ratemaking was long the rule with value-of-service pricing appearing mostly in telecommunications. Now the advent of unbundling and marketing of individual services, deep discount pricing, lifeline rates, incentive and developmental pricing, and improved calculating of demand elasticities has lessened the dominance of cost-based rate design. However, the shift has not been complete.

Tariffs have been staples of utility regulation. A company's rates to customers historically have been public and published. Competition has brought a major shift toward negotiated and contract rates, as opposed to tariff rates, bilaterally arranged, usually with large customers, and often not generally available for review. Transportation led the way in this movement with the energy and telecommunications fields following suit. Besides the obvious difficulties this has raised for regulatory monitorship, the likelihood of undue discrimination and predation is now significantly greater. On the other hand, negotiated pricing in segmented markets can reflect demand elasticities and the value of the service to willing buyers.

There is a good deal of evidence that commission regulation is changing from being primarily *quasi-judicial* to *quasi-legislative.* This shift in underlying concepts is occasioned both by the changing mission of com-

missions and the change in accompanying procedures. This means that with relaxed authority over prices and profits, general rate cases are less common and adjudication less the task. At the same time, with commissions directed to actively foster competition by setting the rules for market participants and refereeing the interplay, the prescriptive policy role (i.e., the legislative dimension) has increased. Moreover, while judicialization still characterizes the process, other settlement models, alternative dispute resolution (ADR), staff/industry/ratepayer collaboratives, and scientific panels are increasingly employed by PUCs.[57]

B. Propositions

Three propositions are new to our Modifications column and six "old" ones continue to appear. *Proprietary information* in the utility field has changed in both amount and kind. Previously the line was drawn rather narrowly around what was agreed to be called proprietary. The issue came up rather infrequently, and when it did, commissions and the regulated companies have amicably worked out the necessary access to the information with appropriate safeguards. In a context of comprehensive regulation, where commissions needed full information and there were not others to make adverse use of the information, inter-industry competition between electric and gas suppliers being one exception, proprietariness was a good deal less salient.

Obviously, this is no longer the case considering commission authority and practice is less intrusive, exclusive franchises are gone or eroding, competition is appearing in some markets, and the boundary for proprietary information is being drawn much more widely around utilities.[58] However useful this may be for the companies, it means that the problem of information asymmetry (between regulators and the regulated companies) is thereby worsening for the regulators.

A longtime fundamental proposition of utility regulation, the *obligation to serve* is a lot less "fundamental" now. Originating in English common law, the idea was that monopoly providers in certain common callings had a near-absolute duty to service all who requested it, and at fair and reasonable rates. This idea is clearly ill fit in a context of competition induced by policy changes, where customers "shop around," "cut deals," "leverage their buying power," and otherwise complicate the world of the incumbent supplier. Conversely, it would be awkward and impractical to allow abandoning the proposition fully, because regulators know that there will be outright failures by some new suppliers and that some customers who left the system for alternative service will want to "return home." This uncertainty in the customer base of the incumbent, particularly in a period of tight capacity, arguably weakens its obligation to serve and may reduce a utility's response to a "best effort basis" only. Regulators have

57. *See generally* Jones, *supra* note 54, at 46.

58. Donald F. Santa, *Who Needs What, and Why? Reporting and Disclosure Obligations In Emerging Competitive Electricity Markets*, 21 Energy L.J. 1 (2000).

thus surfaced several compensating mechanisms, such as providing disincentives for customers to leave in the first place (e.g., surcharges, exit fees in the electrics) and the offering of longer-term contracts for service which have the effect of locking in customers with desirable load characteristics.

Discussion of the *fair rate of return* for utility investments faded noticeably with the decline of general rate cases and their replacement by incentive regulation or outright deregulation. Nonetheless, the proposition is still employed, particularly when commissions conduct periodic reviews in the course of monitorship to determine how the various forms of alternative regulation are working out. That is, after what could be described as planned regulatory lag under, for example, a price cap regime where a judgment is made as to whether the results are acceptable and an important part of that judgment is the rate of return that the company experienced. The standards now employed in that determination are based less on the *Bluefield* and *Hope* decisions, and more on what the public will allow and the market structure implies.

As mentioned, a half-dozen propositions that were Modifications in the 1988 analysis remain so in this review. *Full and fair evidentiary hearings* still are held, though much less often in a period of relatively stable prices, few general rate cases, the operation of automatic adjustment clauses of various kinds, and less judicialized proceedings. The tilt toward rulemaking and away from adjudication has also contributed toward their lesser use.

Assured recovery of utility investments has been further modified, as would be expected, in the face of competitive forces in certain markets. Not surprisingly, utilities have developed strategies to minimize the threat and amount of "under recovery," like pursuing stranded costs in commission, court, and legislative forums, and insulating their customer base from raiding by rivals. Similarly, the proposition of *balancing the returns to risk with the risk taken* is increasingly left to "the market," but with the occasional "true ups" (mentioned above) regarding the rate of return. Attention to some matching of rewards to risks is perhaps all the more important in a context of core and non-core, enhanced and basic customer services, international and domestic operations, and diversification into non-regulated activities. In short, a circumstance of differential risks and differential returns.

The domain of *management prerogatives* has been enlarged. For much of regulatory history, commissions, through inclination or inertia, ascribed rather wide latitudes to utility management, e.g., capacity expansion, rate design, and technological development. In the decades of the 1970s and 1980s, the boundaries of management prerogatives were substantially narrowed as commissions inserted themselves actively into all three of these areas. PUC's encouraged or insisted upon efficiency and conservation programs (DSM), particular allocation of the revenue requirement among customer classes, and adoption of particular technolo-

gies to provide the service.[59] In the 1990s, however, commissions have retrenched their oversight consistent with new reliance on competition and markets to work their disciplining effect on utility management.

The problem of the *revolving door* and regulatory agency personnel changes continues with modification. The proposition is that regulatory officials, on grounds of avoidance of conflict of interest, should neither come directly from, nor go directly to, utilities they regulate. Rules and statutes requiring "cooling off" periods and sensible appointment practices by governors have probably mitigated the more obvious abuses.[60] However, a problem remains on the exit side (from commission to industry), and is exacerbated by the many new opportunities presented as more and more companies enter the utility sectors creating demand for experienced regulatory affairs persons with possible influence at commissions. Law firms and consulting firms provide the necessary "indirectness" to satisfy the letter of the protective statutes (if not the spirit), but an increasingly common career path now is from commissioner and senior commission staff to a new or reconfigured utility.

Finally, the venerable proposition that rates should decline with increased consumption – *declining block rates* – continues in the Modifications column. Economic theory supports the notion, but economic analysis suggests that the conventional steepness in the early blocks may overstate the associated costs in that range of the curve. In any event, the requirements of PURPA on the energy side and subsequent rate design practice in all sectors characterized by an environment of emerging competition for customer load have made for a much flattened structure – if not abandoned altogether in the course of bilateral contracting for service.

C. Doctrines

As used here, doctrines connote fundamentalism, tenets and creeds being dictionary synonyms. Only four doctrines qualify as Modifications in this review – two new ones and two old.

Rate base regulation as doctrine has been moved from the Survivor column to the Modifications list as incentive regulation and actual deregulation progressively erode its usage. Like the fair rate of return described above, it is revisited in some form when major regulatory reviews are periodically conducted to determine the effectiveness and efficacy of extending alternative approaches—a kind of benchmarking function of substantial importance. Needless to say, in those states, sectors (e.g., water) or segments (e.g., local distribution) where other approaches have not yet supplanted rate base regulation the doctrine remains primary. That utility rates be *just and reasonable* has long been with us. While still applicable in the regulated components of the utility sectors, the advent of competition and the concurrent relaxation of detailed price regulation have modified

59. *See generally supra* note 35.

60. For a good sampling of the literature on the revolving door problem in regulation, see Phillips, *supra* note 9, at 899.

this theme. It is presumed that market-determined rates for utility services automatically meet the just and reasonable standard, but absent the extreme of outright predatory pricing and without full disclosure of contract pricing no one really knows.

Continuing in the Modifications category are two other doctrines: (1) *incentive regulation,* and (2) *universal service.* The first has been with us a couple decades; the second has been with us virtually since the beginning of utility regulation. Incentive *regulation* has been transformed from a rather narrowly targeted system of rewarding utilities for financial or engineering improvements, like fuel procurement economies and plant outage reductions, to a broad-based utility performance encompassing financial, operational, service, investment, and innovation. The fundamental idea is to induce utility behavior toward some desired goal, for example, more equal consideration of demand side solutions (as against supply side when contemplating plant expansion), or more efficient provision of the service, and to accomplish this by allowing the company to capture some of the savings.[61] Perhaps four-fifths of the states and the federal regulators now have authorized some form of incentive regulation involving decoupling prices and costs through price and revenue caps, earnings bands, indexing, and "split the savings" schemes.[62] Such approaches are thought to be more consonant with the drive toward market competition, a kind of "halfway house" to fuller deregulation.

Always a somewhat ambiguous doctrine despite the absoluteness of the term, *universal service* has undergone further alteration. The focus now is on the calculation of costs associated with rural or urban, basic or enhanced, and average or marginal services, and who is to provide the service in a non-monopoly environment and under what conditions. Continuing developments in technology (particularly in the communications field) have made for less homogeneous service and reintroduced the social concerns of the "have/have not" phenomenon. Yet, despite lengthy discussion over what actually constitutes "universality" and a strong preference for "more business-like pricing" of all services, the universal service doctrine continues as a notable force.

V. CONCLUSIONS

This examination of the status of the main (forty-seven) concepts, propositions, and doctrines of public utility regulation as now practiced was done in the belief that their proper categorization as Casualties, Survivors, or Modifications says much about the state of commission regulation

61. A good collection of papers treating various aspects of the subject is found in *The Future of Incentive Regulation in the Electric Utility Industry,* Proceedings of a Conference at the School of Public and Environmental Affairs, Indiana University- Purdue University, Indianapolis, Ind., Nov. 18, 1991.

62. For a good review see Synapse Energy Economics, Inc., *Performanced-Based Regulation in a Restructured Electric Industry* (1997), *available at* http://www.synapse-energy.com/downloads/phrnaro.doc; also G.A. Comnes, *Review of Performance-Based Ratemaking Plans for U.S. Gas Distribution Companies*, Lawrence Berkeley Laboratory-35680, Univ. of Cal. (1994). Abstract *available at* http://eetd.lbl.gov/ea/emp/reports/35680.html.

itself. Taken together with a similar inquiry a dozen years ago, the review allows some modest observations to be made as to magnitude and direction.

The reporting of nine concepts, propositions, and doctrines as new casualties added to the eight so classified earlier (1988) corroborates the rhetoric and the fact that very significant dismantling of traditional regulation is taking place. Continued modification of twenty-one others, predominantly in the direction of relaxed oversight, provides additional evidence. On the other hand, the appearance of some fourteen new concepts, propositions, and doctrines means that public utility commissions remain important players re-equipped with a different set of considerations – pointed mostly at facilitating and refereeing competition wherever possible and, therefore, only indirectly at consumer protection. Viewed this way, it can be argued that commission regulation, while consistently losing or having modified many of its historical features over the last two decades, was nevertheless re-supplied with new ones in response to major changes in public policy toward utilities – primarily the move to encouraging competition. In all events, reports of the death of commission regulation are, once again, much exaggerated.

Still, the implications of the switch in direction of much of the point and purpose of these forty-seven elements are momentous. At a minimum, we are in a fairly perilous transition period in which public policy is betting a great deal that workable markets will develop and widespread competition will prevail in these utility sectors. The worry is that to date the hope exceeds the reality by a substantial amount. It could, of course, "all work out," but the main downside danger is that if we do not get the degree, pace, and timing of retrenchment of administrative regulation "about right," the result could be the worst of both worlds - nearly unregulated near monopolies and a long term market structure for these industries of dominant firms with ineffective rivals.

TABLE I

Summary Listing of Forty-Seven Regulatory Concepts, Propositions, and Doctrines; As to Their Current Status at End of the Period 1988-2000

TYPES	NEW CASUALTIES	SURVIVORS AND ADDITIONS*	MODIFICATIONS
Concepts	• Revenue Requirement Standard • Cost Disallowance • Historical Test Year • LCUP/DSM	• *Unbundling* • *Rate Rebalancing* • *Revenue Neutrality* • *Market-based Rates* • *Price Caps* • *LRIC* • *Stranded Assets* • *Securitization* • *Default Customers*	• Natural Monopoly • Average Cost Methodology • Interim Rate Relief • Yardstick Regulation • Captive Customer • Cost-based and Value-based Ratemaking • Tariffs • Quasi-judicial
Propositions	• Territorial franchise exclusivity • Regulatory Bargain	• *Open Access* • *Codes of Conduct* • *Transparency*	• Proprietary Information • Obligation to Serve • Fair Rate of Return • Full and Fair Evidentiary Hearings • Assured Recovery • Risk and Returns to Risk • Management Prerogatives • Revolving Door Problem • Declining Block Rates
Doctrines	• Regulation as Proxy for Competition • No Undue Discrimination • Prudence Test	• Competition • Supplier of Last Resort • Judicial Review • Fairness and Equity Considerations • Public Interest Theory	• Ratebase Regulation • Just and Reasonable Rates • Incentive Regulation • Universal Service
	9 = 19% (v. 21%)	17 = 36% (v. 32%)	21 = 50% (v. 47%)

Note: *Italics denote additions.

TABLE 2*

Summary Listing of Thirty-Eight Regulatory Concepts, Propositions, and Doctrines; As to Their Current Status

	CASUALTIES	SURVIVORS	MODIFICATIONS
Concepts	• Used and useful • Regulatory lag • System averaging • Certificate of PCN	• Cost-based and value-based rate-making • Cost disallowance • Captive customer	• Natural Monopoly • Historical test year • Yardstick regulation • Appointment of commissioners • Interim rate relief • Dominance of average cost methodology • Class, exception, and commodity rates
Propositions	• No pancaking of rate cases • Taxpayer funding of PSCs • Preserving the inherent advantage of each	• Obligation to serve • Fair rate of return	• Full and fair evidentiary hearings • Management prepogatives • Territorial exclusivity • Certainty of recouping investment • Risk and returns to risk • Declining block rates • Revolving door
Doctrines	• Clear bright line in dual regulatory jurisdiction	• Public Interest theory • Fairness and equity • Judicial review • Rate base regulation • Prudence tests • No undue discrimination • Reasonable rate of return	• Regulatory bargain • Incentive regulation • Universal service • Proxy for competition
	8	12	18

* From *Journal of Economic Issues*, Vol. 22, No. 4, December 1988, p. 1091.