

A symposium on public utility regulation in Maine

Maine Policy Review (1991). Volume 1, Number 1

The regulation of public utilities in Maine continues to evolve in response to changing economic, political and social forces. Not only has the structure of regulation of the electrical and telecommunications industry seen dramatic changes in the past twenty years, but it also is certain the next decade will see equally fundamental changes. Maine Policy Review invited three key participants in Maine's regulatory arena - Robert Briggs of Bangor Hydro-Electric, Public Advocate Steve Ward, and Thomas McBrierty of New England Telephone - each to interpret the changes of the past two decades and what future changes we can expect. - Editor

Redefining utilities: regulatory change for electric and telephone companies in Maine since 1980

by Stephen G. Ward, Maine Public Advocate

Conventional wisdom has it that, among American for-profit corporations, public utilities constitute a category of one. More subject to government regulation than virtually any other business enterprise, public utilities operate under a legislative franchise, are obligated to serve all customers in their franchise areas and have prices set on most services by public utilities commissions. Nonetheless, the courts have upheld an extensive privilege for the on-going management of utility affairs, to promote the best interests of utility shareholders and investors. The compound accountability (to regulators and shareholders) under rate-of-return regulation makes utility management less sensitive to financial risk and fundamentally more stable than other corporations. One could easily conclude that the operations of Maine's utilities are, if anything, insulated from fundamental change.

It would be incorrect, however, to assume that the interactions between utilities and their regulators are not subject to major and rapidly occurring shifts. The themes and preoccupations that dominated the utility agenda in 1980 are conspicuously different from those prominent ten years later. I would like to illustrate some of the more conspicuous of these shifts in policy and ratemaking from the perspective of my experience in Maine's Executive Department since 1980 and in the Maine Public Advocate's office since 1982. A review of the regulatory agenda in electric and telecommunications in 1980 compared with 1990 discloses some sharp contrasts. Rising above the detail, however, is the overall observation that Maine's utilities have, in unintended but fundamental ways, entirely redefined their roles and identities over a ten-year period. Looking ahead to the year 2000, it appears quite likely that the interaction of regulator and shareholder interests will lead us to an equally unexpected set of functional outcomes. In particular, the path taken by telephone utilities in Maine and their experience of regulation has been vividly different than that of electric utilities.

In comparing the utility role in 1980 to that of today, I will focus on three areas where the differences between eras (and between telephone and power utilities) are most marked. These three areas are: the degree to which utility pricing is driven by technology; the relative weight given to short-term as compared to long-term prices in utility rates and planning; and the way in

which income distribution issues, through the years, have been addressed. In each of these areas we can trace major shifts since 1980 in the dominant themes of regulation and in the response of Maine's utilities to them.

Technology-driven aspects of utility regulation

The year 1980 was dominated by news about the Seabrook project in New Hampshire and about the growing burden for Maine's electric utilities of their shares in that project. For each of the three preceding years, major demonstrations and civil disobedience had occurred at the gates of the project. In September 1980, Maine Public Service (MPS) Company filed for a twenty percent increase in rates (ultimately reduced to five percent in the PUC's final order), which reflected the impact of Seabrook project costs on Maine's smallest investor-owned electric utility. The PUC responded to these issues by ordering, for the first time, an investigation of Maine Public's planned 33.6 megawatt investment in Seabrook and by stripping from MPS' rates the costs for the Seabrook Educational Center. By contrast, the PUC's order in the Central Maine Power rate case, decided October 31, 1980, gave scant attention to CMP's 140.4 megawatts of investment in the two Seabrook units which, already by 1980, were projected to triple the original completion cost estimate made in 1972. By April of 1984, the estimated capacity cost for both Seabrook units had risen to \$6.86 billion, more than double the 1980 estimate. Ultimately, in December 1984, the Maine PUC issued an order directing Maine's Seabrook owners to prepare plans for their "complete disengagement" from the Seabrook project.

As of mid-1980, however, there were few indications that Seabrook would dominate electric utility regulation in four short years. Regulators were looking to the past. The 1980 CMP rate case order, for example, focused at length on CMP's request for recovery of the pre-construction costs for its canceled Sears Island nuclear unit and on the issue of malfunctions at the newly-commissioned Wyman 4 oil unit. In fact, a certain enthusiasm for nuclear technology lingered at the Maine PUC, among its commissioners and staff, along with the view that nuclear investments deserved special encouragement as compared, for example, to a coal plant at Sears Island or to time-of-use rate innovations.

Planning for electric utilities in 1980 was almost entirely technology-driven and necessarily short-range. Successive nuclear power plant cancellations in New England were announced (at Montague and Plymouth, Massachusetts, Charlestown, Rhode Island and Sears Island, Maine), and cost estimates for the remaining units under construction (at Seabrook and Millstone) were revised annually. Government played no effective role in power planning by Maine's electric utilities or in stimulating the development of conservation and load management. In fact, the Maine law requiring electric utilities to secure PUC approval prior to undertaking a new purchase or project post-dated the Maine Seabrook commitments, and was not invoked until 1984. Only as the long-run implications of Seabrook investments upon rates (\$256 million for CMP, \$90 million for Bangor Hydro and \$67 million for Maine Public Service, by 1984) were realized did the need for long-term planning become evident. In this vacuum, technology-based solutions for load growth dominated the electric utility agenda.

By contrast, no technological godsend was heralded for Maine's telephone utilities in 1980. Telephone transport and switching was a quiet place powered by a familiar (if aging) technology:

Electro-mechanical switches in the central offices of New England Telephone and the independent company exchanges. In a world of slow and orderly growth, a long-standing objective of both the Bell System and regulators, universal telephone service, appeared to be within reach. In the absence of new construction, Maine's telephone utilities began the 1980s in approximately the same manner in which they had completed the 1940s, relying on an established switching technology and a depreciating base of physical plant. The circumstance, of course, couldn't last. Ten years later, Maine's telecommunications utilities had all but completed the installation of their technological marvel, electronic central offices that transport digitized messages over fiber optic transport links. The major costs of this new telephone system surfaced in periodic rate cases during the 1980s at the Maine PUC but occasioned no major dispute or regulatory rejoinder. Unlike Maine's electric utilities, telephone companies managed to secure PUC rate orders in 1981, 1982 and 1985 with, at most, glancing mention of new construction programs.

For Maine's two largest telephone companies, the replacement of electro-mechanical with digital switches has occurred in all major exchanges along the Interstate 95 corridor and in numerous other communities across Maine. This transformation has put an occasional strain on telephone rates, but has virtually run its course. Digital switching technology does appear to have fulfilled the hopes of utility planners in causing the marginal costs of intra-state calls to adopt a consistent downward trend. In addition, the new switching technology has made possible numerous ancillary services (call waiting, call forwarding, call trace, caller ID) that the old electro-mechanical technology could not accommodate. The revenue from the so-called enhanced services has greatly reduced the frequency of telephone rate increases.

In the interval between the elections of Ronald Reagan and John McKernan then, the relative positions of electric and telephone utilities have reversed. Today, no single technology dominates the planning agenda for electric utilities. A complex and interactive series of planning decisions, involving numerous agencies of government and departments within the utility, has resulted in the selection of 30-year "least cost plans" for electricity purchases, conservation programs and new power plant projects. In this planning process, a two-dollar-per-barrel drop in expected oil prices will simultaneously reconfigure projected load requirements, expected conservation savings, predicted purchases and sales to other NEPOOL utilities and the on-line dates of proposed new plants.

By contrast, no comparable form of interactive planning is in place for Maine's telephone utilities, nor does any Maine law require it. Telephone utilities have succeeded in transforming the network with a single, powerful tool, the digital central office, to a degree that a 1970s electric utility planner could only envy. Even more remarkably, Maine government, including its PUC, State Planning Office and courts, have participated in this ten-year transformation primarily as observers, and without any of the initiative and involvement that characterized Seabrook-era electric regulation by the mid-1980s. Telephone utilities have redefined themselves during the 1980s by providing digitized services over new equipment and by responding to new opportunities. That redefinition has been endorsed by Maine's regulators, but unquestionably was not created by them. Both telephone and electric utility managers may have started the 1980s with private visions of installing an entirely new technology in Maine without real government interference, but only the telephone companies have actually succeeded in this objective.

Short-run and long-term pricing in 1980 and 1990

Maine's telecommunications companies place considerable emphasis today on price flexibility and on short-run market trials of new products and services. This is due to the new, competitive environment of telephone services in the 1990s. With the strong encouragement of PUC regulators (and the Public Advocate's office), New England Telephone, Contel and the independents are attempting to exploit marketing opportunities today that are just becoming visible, and which could generate substantial new revenues. Some of these new marketing opportunities compete directly with unregulated businesses (for example, as voice messaging competes with answering machines), while other add so-called "enhanced service" (such as call trace or caller ID) to traditional basic ex-change calling. The full scope of these new markets is not yet known. Accordingly, NET and the other telephone companies have been initiating one- or two-year market trials to test the depth and durability of these new options.

For NET and Contel, key aspects of telephone pricing are short-run and, as noted earlier, are entirely a function of the digital capabilities in new central office switches. Because marginal costs are on the decline, periodic general rate changes are now much more likely to result in rate reductions (at the PUC's insistence, rather than at a telephone company's request) than was the case in the early 1980s. New England Telephone's intrastate toll rates were reduced by \$8 million in 1989 and further downward adjustments are foreseeable.

In contrast to the dominance of short-run price signals for Maine's telephone companies, Maine's electric utilities routinely adopt a thirty-year planning horizon in evaluating sources of new power supply, including conservation and load management measures. Utilities have undertaken long-term commitments with wood chip generators, with trash incinerators and with private hydro projects whose break-even point for ratepayers' benefit was at year fifteen or later. Long-term price signals are fundamental to electric utility rates today. The marginal costs used in the most recent PUC-ordered redesign of CMP rates are long-run costs: twenty to fifty years for the marginal cost of generation and transmission, and at least three to five years for the marginal costs of energy.

Matching the components of customer price to the long lives of utility assets makes sense since customer consumption decisions, as for example whether or not to purchase a highly efficient refrigerator, also rely on long time horizons. However, it has not always been so. Today's doctrines of long-term pricing received scant attention in the 1980s when regulators and utility managers alike were overwhelmed by the cumulative effects of the second Arab oil embargo, double-digit inflation, and recession.

Ten years ago, Maine's electric utilities coped with each of these price shocks (and with the annual, upward revisions of cost-to-complete estimates for Seabrook) with yearly, or at least biennial, rate increase requests. The PUC approved successive increases for CMP (1980, 1982, 1983 and 1984), Bangor Hydro (1980, 1982, and 1984), and Maine Public Service (1981, 1982, and 1984). Inevitably, the combined effect of these cases was a kind of battle fatigue in which short-term price impacts loomed large and all other considerations were lost in the fog of litigation. Interestingly, a comparable cycle of electric utility rate increase requests is now underway, again provoked by national economic trends: in 1989, CMP and Bangor Hydro filed

rate increase requests, in 1990 CMP filed a second request, and, in 1991 CMP, MPS, and BHE all have simultaneous rate cases underway at the Maine PUC. Once more there is an evident danger that in the press of litigating these cases, the commission will allow its focus on proper pricing to be directed entirely to the immediate impacts of any increase on electric customers. A major challenge for regulators in the 1990s will be to avoid a pendulum swing from long-run costing to immediate-term price impacts and to find a perspective which reconciles both time horizons.

An entirely different challenge confronts regulators of telecommunications in an era of partial deregulation: How to assure that price schemes are flexible enough to survive competition from unregulated vendors and also are based on a clear understanding of long-term cost trends for captive residential customers and potential by-passers alike. The complete absence today or reliable, long-run cost data for New England Telephone makes this problem especially acute. To a very real degree, any telephone system planner transported to CMP in 1991 would find unrecognizable the regulatory landscape he or she would confront if the same costing data and long-run assumptions were required of telephone utilities as currently exist in electric system planning. NET'S marketing specialists today are expected to converse in a different dialect (and with a different temporal perspective) than any CMP or Bangor Hydro manager of power supply.

Income distribution controversies in 1980 and 1990

Throughout the 1980s, recurring themes of income distribution appeared in the regulatory proceedings of telephone and electric utilities. These issues may represent the only common ground in the trench warfare of telephone and electric rate cases. In both settings, residential customers have an understandable interest in assigning a bigger slice of the revenue requirement pie to industrial users, and vice versa. The PUC decisions over the decade have been roughly consistent in the principles applied to telephone and electric cost allocation, based on equal parts economic efficiency and overall fairness. The latter considerations reflect the perceived effects of rate increases on individual customer classes, and the relative "acceptability" of increases to their underlying constituencies.

Given the precariousness of this balancing act, Maine's regulators can be expected to make an occasional slip, but overall justice among rate classes has been secured. The preoccupations of economic theoreticians meet political expediency in the twilight of these little-noticed (and often interminable) proceedings. The struggle over income distribution among and between CMP's customer classes was inaugurated in a 1980 proceeding and was renewed in a 1986 docket, but did not result in an actual redesign of CMP's rates until 1988. By contrast, New England Telephone managed to compress the same process into two successive cases in 1983 and 1984, whose fundamental design has lasted into the 1990s. Maine's regulators deserve credit for bringing to completion the most painful of tasks: deciding out of whose pockets to take the dollars needed to comprise the utilities' authorized revenue requirement.

A different income distribution issue has recently surfaced. When utility rates become the necessary vehicle for addressing social welfare needs of low-income customers, how may we best structure any resulting subsidy from other ratepayers? This question arose for New England Telephone in the context of a Federal Communications Commission proposal to match (with

revenues from interstate telephone customers across the country) the contribution of NET ratepayers to a subsidy for the costs of basic service and telephone hook-ups. Initially, regulators had a strong preference for the appropriation of general fund revenues, from taxes, to provide the necessary matching funds. Ultimately for NET, Contel, and independent companies, the dearth of available state funding led to the decision to authorize a cross-subsidy to support universal telephone service. This decision has, at its heart, the common sense rationale that, with very few exceptions, taxpayers and ratepayers are the same entities.

For essentially identical reasons, the Maine Legislature in 1991 directed electric utilities to file proposals for making electricity more affordable for low-income customers and, where possible, to take advantage of opportunities for efficiencies in these rate subsidy proposals. An obvious area of such efficiency would be the reduction in uncollectible revenue (now running nearly one percent of all billings for CMP) and associated credit and collection expense. The PUC decided the scope, mechanisms, and objectives of these pilot programs for CMP, Bangor Hydro, and Maine Public Service in October 1991, approving an estimated total of \$3.7 million in rate reductions for 14,000 low-income customers in the 1991-1992 heating season.

Although income distribution is an obvious result of any lifeline or percentage-of-income program for low-income utility customers, the low-income proposals of CMP or New England Telephone relate to the same fundamental aspect of PUC decision-making that has existed since the early days of this century: setting prices in a manner that is both reasoned and fair. The decision to approve a twenty-five percent discount for a customer who lives at seventy-five percent of federal poverty is not fundamentally different from capping the required increase for the small commercial class at zero (while other classes experience eight percent increases) in recognition of past over-collections from that class. The exercise of PUC authority is above all the exercise of informed judgment that despite some extremes during the decade of the 1980s has succeeded in balancing fairness with economic necessity. As with most enterprises, we can of course get better at it.

Into the '90s and beyond

Utilities are now subject to a substantially changed set of social expectations as compared to 1980. The telephone utilities have achieved some considerable success in steering clear of the punishing process of PUC regulation, at least with respect to new construction and long-run costing analysis. That success could not have been confidently predicted in 1980. As of that date, New England Telephone was engaged in appealing virtually every PUC rate decision to the Maine Law Court and, in one instance, to the federal court of appeals in Boston. The bitterness and divisiveness engendered by that cycle of litigation hardly foreshadowed the amiable disengagement of NET'S relations with its regulators today. These redefinitions of the utility's place in the sun will, of course, continue their unpredictable evolution. It can be expected, however, that the internecine warfare which characterizes electric utility regulation today will assume a new character by the end of the decade. The only absolute constant over the last ten years appears to be change itself.

Stephen G. Ward is Maine's Public Advocate, a position he has held since 1987. He has served as lead counsel for the Office of Public Advocate in electricity conservation proceedings, and electric and gas rate increase requests before the PUC and the Federal Energy Regulatory Commission.

Full cite: Ward, Stephen G. 1991. ***A symposium on public utility regulation in Maine: Redefining utilities: regulatory change for electric and telephone companies in Maine since 1980.*** Vol. 1(1): 118-124.