Cal #1 3/31/97

Stranded Costs, Stranded Opportunities

LETTING UTILITIES CHARGE THEIR CUSTOMERS FOR BAD INVESTMENTS WILL SACRIFICE RATE REDUCTIONS AND COST MASSACHUSETTS OVER 25,000 JOBS.

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John T. O'Connor
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With an appendix by Marc Breslow, Ph.D.

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SUMMARY

Massachusetts is moving rapidly towards the deregulation of the electric utility industry. This offers the promise of substantial cuts in electric rates for consumers, who have been paying among the highest prices for electricity in the country. It also offers the promise of thousands of new jobs in Massachusetts. Unfortunately, if consumers are required to pay the utilities for the bad investments they have made in the past — their "stranded costs" — these promises will be lost. They will become stranded opportunities.

The rate reductions consumers otherwise would have received, as a result of having the opportunity to buy cheaper power from a variety of sources, will be much less than they otherwise would be. Furthermore, over twenty-five thousand jobs which otherwise would have been created in the Commonwealth, will be lost.

Before it is too late, Massachusetts should reject the utilities' wish to have consumers bail them out for their past bad investments and mismanagement. New Hampshire has largely done this. We can too. We can avoid the stranded opportunities of lower rates and more jobs if we don't pay "stranded costs."

I. INTRODUCTION. The electric utility industry in Massachusetts is quickly moving towards some form of deregulation. The Department of Public Utilities ("D.P.U.") is proposing that deregulation be implemented as of January 1, 1998. A variety of deregulation proposals are currently before the Legislature. Under these proposals, customers would have choices among many suppliers of electricity — generators and various types of marketers. The hope among advocates of deregulation is that competition among the suppliers will lead to considerably lower prices for electricity in the Commonwealth.

Deregulation, as currently envisioned, may very well lead to lower prices. After all, electricity prices in Massachusetts are among the highest in the country. Out of state generating companies may be able to sell electricity in Massachusetts for considerably less than we now pay. Furthermore, an open, competitive system may entice new investment into cheaper, more efficient types of generating facilities. At the same time, deregulation may weaken conservation and efficiency programs, and may increase production and sale of electricity from highly polluting coal fired plants.

But there is a further problem involved with deregulation. The existing utilities have a great deal of money invested in nuclear plants which will likely be uncompetitive in a free market for electricity. In addition, they have many other commitments to buy power, and a variety of other assets, which will be uncompetitive in the new environment. Such investments and commitments have come to be called "stranded costs."

There are many estimates of the amount of "stranded costs" in Massachusetts. Moody's estimated that there are $ 29.5 billion in New England and New York. The documents

filed with the D.P.U. in the New England Electric System proposed deregulation settlement, provide for "stranded costs," before any mitigation, of approximately $5.6 billion for Mass. Electric alone.. The D.P.U., in its Electric Industry Restructuring Plan, issued on December 31, 1996, says that the total stranded costs in the Commonwealth may be as high as $12.5 billion.

The electric utility industry has taken the position that their customers should pay one hundred percent of the industry's "stranded costs." On the other hand, many consumer and environmental organizations, and some businesses, believe that the utilities should absorb those costs, just as other industries such as airlines and trucking had to absorb certain costs in the deregulation process. A recent report, "Electric Utility Restructuring: Issues for Small Business" prepared for the U.S. Small Business Administration by J.M. Wilson and Associates, says that "[s]tranded cost surcharges will delay or deny much of the potential benefits of competition to small business merely to bail out utility companies from the consequences of their past business mistakes — the type of risks that small businesses take every day." And Business Week (12/2/96) editorialized that "The right thing to do is to share the pain. Consumers should pay for costs that utilities couldn't avoid, such as government-mandated contracts to buy power above market rates. But regulators should force utilities to bear most of the costs that could have been avoided with prudence and foresight, such as unneeded, gold-plated generating plants."

Besides the unfairness of treating utilities with uncompetitive assets differently from other business is similar circumstances, another major unfairness in the utilities position is the way they got into their present situation. A major part of "stranded costs" are from nuclear power plants which will be uncompetitive without the massive subsidies represented by the recovery of "stranded costs." But these are the same nuclear power plants which the public and state and local political leaders were told by the utility industry and its allies would provide power which would be "too cheap to meter." In addition, in many cases the nuclear power plants were pushed on

states and localities, despite widespread opposition, by the utility industry which relied on the pro-nuclear Nuclear Regulatory Commission and sympathetic courts. So after deceiving and strong-arming the public into going along with their nuclear investment plans, the utilities now want the public to bail them out after their investments have gone bad.

But the potential for large savings in the price of electricity purchased from suppliers other than the local utilities, has provided an opportune disguise for the utilities "stranded costs" recovery schemes. The prospect that as much as $12.5 billion will be transferred from the pockets of residential, commercial, industrial and governmental customers into the hands of the electric utilities, and their mostly out-of-state stockholders and bondholders so far has been largely hidden by the glitter of possible savings which may be achieved even with the payment of "stranded costs" factored in. Savings of that magnitude may or may not occur. In all likelihood, if they do they will mostly go to large commercial and industrial customers with a lot of market clout, rather than to residential and small business customers which may be shopping for power after the big customers have bought up all the bargains.

But whether or not there is an overall savings, the savings could be much greater — perhaps as much as $12.5 billion — if the utilities are not allowed to skim off the "stranded costs" recovery money through an access charge on everyone's bills. If such an access charge is allowed, and the utilities are able to recover their "stranded costs," then more than unfairness will result. Much more tangible consequences will take place. Two are: (1) Massachusetts customers, especially residential and small business, will pay much more on their bills than they otherwise would so that much of the potential benefits of deregulation for them will be lost; and (2) jobs will be lost which otherwise would exist in the Commonwealth.

This report examines these consequences, and shows that denial of the utilities wishes for "stranded cost" recovery, preferably totally, but also in part, is feasible and good for consumers,

workers and the business community. Moving towards more of a free market in electricity, if done right, may provide real and important benefits for the great majority of those who live and work in Massachusetts. But if done wrong, those benefits can be lost. A key to making sure that it is done right — so that consumers, workers and the business community benefit — is keeping the billions of dollars the utilities want in their pockets, in the hands of Massachusetts' consumers and businesses instead by rejecting the "stranded costs" claims of the utilities.

II. "STRANDED COSTS" PAYMENTS WILL ADD COSTS TO CUSTOMERS' BILLS

Advocates of deregulation claim that it will result in substantially lower electricity bills. The Washington, D.C. based Citizens for a Sound Economy claims that a typical American household would immediately save about $216 a year if utilities had to compete for customers. In Massachusetts, a variety of claims are being made about substantial savings resulting from deregulation. And in the settlement among the Attorney General, Massachusetts Electric and a number of other organizations there is a qualified promise of a ten percent savings in the first year. Similar savings are promised in other plans.

However, whatever the overall savings available as a result of cheaper power choices — and these may very well be substantial — they will be a lot less than they could have been if customers are not forced to pay off "stranded costs" amounting to billions of dollars. For instance, in the proposed Massachusetts Electric settlement, a residential customer with an R-1 rate, who uses 1000KWh per month, currently pays $106.17 per month. If that customer, under deregulation, takes the "standard offer" from Mass. Electric, he or she will pay $94.88 in 1998. But this includes $28.00 for an access charge to pay off "stranded costs." Without that charge, the same customer would be paying $66.88 — a much greater savings than under the proposed plan. At least in the first year, even with paying the "stranded costs" access charge, there is a

relatively small overall savings. It is this savings which acts as a smokescreen for the $28.00 per month and $336 per year "stranded costs" charge.

After the first year, the savings in the Mass. Electric standard offer proposal start to disappear. This is because the "stranded costs" charge remains high — $28 per month in 1999 and 2000, with possible declines after that — and because the cost of power rises considerably. Thus, by 2003 the projected savings totally disappear. The same R-1 customer purchasing 1000 KWh per month, would be paying $108.28 per month, based on the proposed settlement offer. This would be $2.11 higher than the current bill. Residential, commercial, industrial and governmental customers at different levels of purchases would experience similar losses of savings they otherwise would have obtained. So even on its own terms, the proposed Mass. Electric settlement does not result in anything more than very short term savings. This is largely the result of the proposal's plan to require customers to shoulder the full burden of "stranded costs" while the utilities which incurred them get off without paying anything. With the full payment of "stranded costs' by customers, the potential cost savings benefits of deregulation will be delayed indefinitely. This would also be true for other plans now before the Legislature which offered a short term savings. Most of potential savings would be eaten up by the payment of stranded costs.

III. "STRANDED COSTS" PAYMENTS WILL COST OVER 25,000 OF JOBS IN MASSACHUSETTS

Forcing Massachusetts customers to pay the utilities' "stranded costs" will mean that an opportunity to create thousands of new jobs in the Commonwealth will have been sacrificed. The research report of Dr. Marc Breslow, attached as Appendix A, examines the job consequences of paying all the "stranded costs" to the utilities. Using $12.5 billion as the amount of "stranded costs" of all the non-municipal electric utilities in the Commonwealth, a figure taken from the

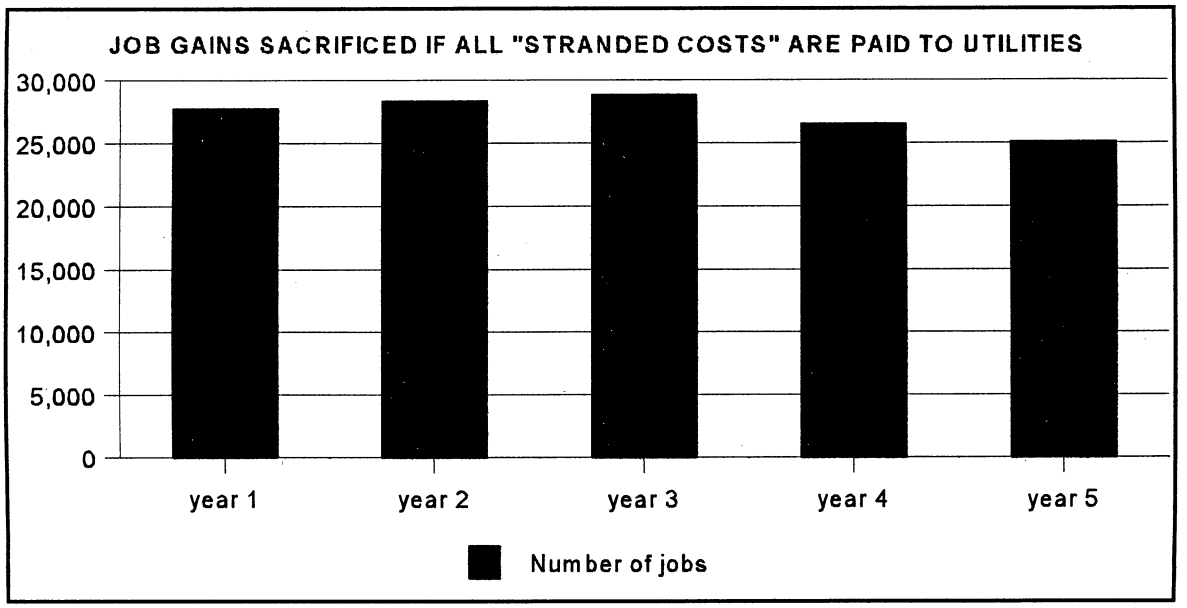
D.P.U.'s Dec. 31, 1996 report on deregulation, and one which is consistent with other estimates of "stranded costs," Dr. Breslow used a methodology known as "input-output analysis" to project job gains sacrificed as a result of paying all the "stranded costs" to the utilities as follows:

* year 1 — 27,800 jobs;

* year 2 — 28,400 jobs;

* year 3 — 28,900 jobs;

* year 4 — 26,500 jobs,



* year 5 — 25,100 jobs

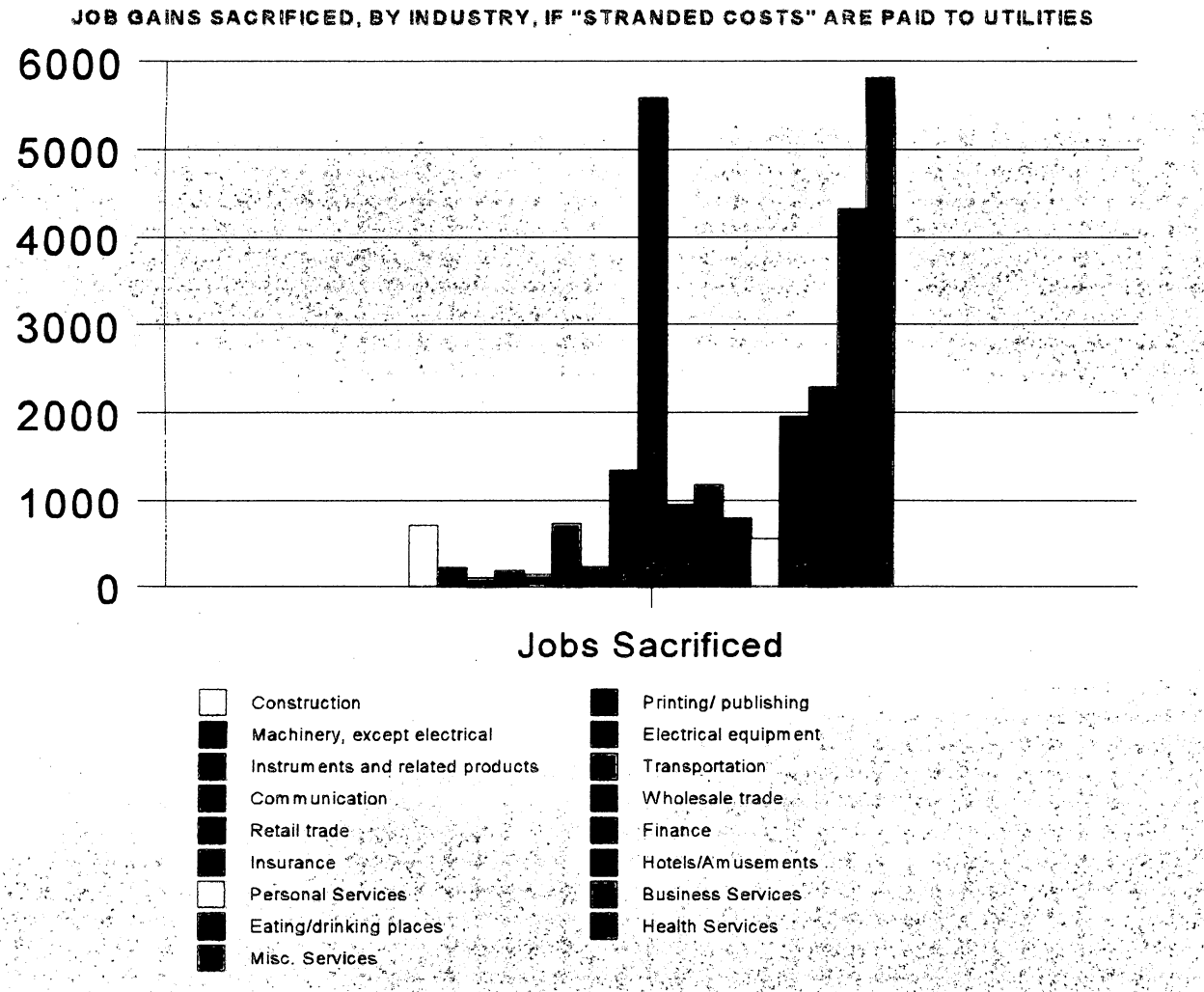
(See Appendix at p. 2)

What this shows is that if Massachusetts customers keep the $12.5 billion, rather than giving it to the utilities whose stockholders and bondholders mostly are from out of state, then these customers will spend their money and create new jobs as a result Conversely, if we end up

sending the $12.5 billion to the utilities, we will be sacrificing the opportunity to create these jobs in the Commonwealth.

Dr. Breslow's analysis also shows that if some of the nuclear capacity which serves Massachusetts is replaced with equivalent gas turbine capacity — something which is more likely if the nuclear capacity is not subsidized through "stranded costs" recovery — then new construction and other jobs will result. Thus, for instance, if 1200 Megawatts of nuclear capacity is replaced, approximately 1,430 construction jobs would result.

Dr. Breslow also shows that most of the jobs which would be created if "stranded costs" are not paid to the utilities would be in the following sectors: construction, printing/publishing, machinery except electrical, electrical equipment, instruments and related products, transportation, communications, wholesale trade, retail trade, finance, insurance, hotels/amusements, personal services, business services, eating/drinking places. Health services, and miscellaneous services. The following chart shows the projected numbers of jobs by industry which would be sacrificed in the first year of "stranded costs" payments.



IV. "STRANDED COST" PAYMENTS CAN BE ELIMINATED OR REDUCED

The increased costs to consumers and the loss of jobs the state otherwise would have had could be eliminated if all of the recovery of "stranded costs" was denied. If the utilities had to pay the full cost of their past bad investments and other commitments, then customers would save billions of dollars and there would be over 25,000 more jobs in the Commonwealth.

Even if some type of splitting of the "stranded costs" between the utilities and their customers were adopted there would be tremendous benefits in terms of customer savings and bills. If, for instance, Massachusetts were to split the responsibility of "stranded costs" on a 50-50 basis, the would be a resulting savings to consumers of billions of dollars, and we would have over 12,500 jobs we otherwise would have lost if all the stranded costs were paid by consumers.

In addition to reducing the percentage of "stranded costs" paid by consumers below 100 per cent, another reasonable way to more equitably share responsibility would involve defining "stranded costs" in a more pro-consumer way than is set forth in most of the proposals currently under consideration.

In the Mass. Electric proposal, the utilities are not only fully compensated for the costs of their bad investments, but they are permitted to earn further profits on those bad investments for many years into the future. Under this proposal, Mass. Electric's parent company is essentially guaranteed an overall pre-tax rate of return of 11.18 percent between January 1, 1998 and December 31, 2009 on the remaining amount of bad investments that haven't been paid off through a customer charge. Such a rate of return, given the virtually risk free nature of the investment at that point, is unjustified.

Actually, there is no reason to allow any such profit on the remaining "stranded assets." In analogous situations, the Supreme Judicial Court has allowed the D.P.U. to exclude from the rate base utility assets which were no longer in use, even if the reason for their retirement was a change in the law. Thus, for instance, in Fitchburg Gas & Electric Light Co. v. Department of Public Utilities, 371 Mass. 881 (1977) the D.P.U. excluded from the utility's rate base certain property which was prematurely retired as a result of it becoming obsolete when new Massachusetts environmental pollution regulations went into effect. This meant that while the utility could recover the unamortized portion of its investment in the property, it could not earn a rate of profit on that unamortized amount. This is essentially the same as the rate of return or profit which Mass. Electric would earn on the unamortized portion of certain stranded costs in the proposed settlement plan. In Fitchburg the Court upheld the D.P.U. saying that its decision "was a reasonable exercise of its economic and regulatory judgment." In the present deregulation situation, it would be equally reasonable to reject the utilities' claims that they should earn a

further profit on unamortized portions of stranded costs.

Another area where the scope of stranded costs could be reduced involves the proper date after which investments should not be included in "stranded costs." In the Mass. Electric proposal, the date in regard to capital assets is Dec. 31, 1995. If Mass. Electric made investments after that — even if they turn out to be uneconomical -- they cannot be recovered as :stranded costs." The rationale behind this is that by then it was foreseeable by Mass. Electric that some form of competition was likely to happen.

However, an earlier date would be reasonable to use. By the early 1980s the electric utility was already aware that increased competition was most probably in their future. As an example, in 1981 a Philadelphia Electric Company expert testified in a rate hearing: "There is a federal trend to foster competition in the utility business. The telephone and other industries engaged in communications...are some examples, and now there is talk of deregulation of electric generation." (In testimony of Peter Bradford and Richard H. Silkman, Pennsylvania Public Utility Commission, Docket No. R-00973877, Feb. 28, 1997, at p. 17, note 21).

Because of this forseeability before Dec. 31, 1995, it would be reasonable to make the cutoff date for "stranded costs" considerably earlier. By doing so, consumers in Massachusetts could save millions of dollars. For instance, Mass. Electric's share of Millstone 3's "stranded costs" as a 1997 may be as large as $344 million. Since the plant was not placed in service until 1986 it may turn out that upon examination, much of that shared should not be recovered since it was invested after competition was reasonably foreseeable. The same could be said for Seabrook, in which Mass. Electric's small percentage ownership involves "stranded costs" which may be as much as $41 million. Seabrook was not placed in service until 1990.

Another possible way to limit stranded costs would be to exclude from "stranded costs" the remaining investment in those nuclear plants which have already closed or are uneconomical in

a competitive environment for safety and mismanagement reasons. Otherwise payments by customers to pay off "stranded costs" amount to a form of **mismanagement tax.** For instance, the Connecticut Department of Public Utility Control recently issued an extremely critical report on Northeast Utilities which operates four nuclear power plants which have been shut for safety reasons, some of which have supplied power to Massachusetts. The report said: "As Northeast Utilities has consistently misunderstood the nature of its problems over the past decade, it has consistently applied the wrong solutions." This report led Connecticut Attorney General Richard Blumenthal to say: "This scathing audit of the mismanagement of Connecticut's four nuclear plants is further evidence that the troubles with Connecticut's nuclear plants are the result of massive mismanagement at Northeast Utilities."

Despite this mismanagement, there is a very real likelihood that Massachusetts consumers will be stuck with part of the cost of this mismanagement under the guise of paying "stranded costs." For instance, in the proposed Massachusetts Electric deregulation plan, Mass. Electric's parent New England Power's ownership share of Millstone Unit 3, one of the four nuclear plants operated by Northeast Utilities, is included in "stranded costs." The 1997 amount of New England Power's Millstone 3 investment is $344 million.

Any plan to allow the utilities to collect "stranded costs" from consumers should define "stranded costs" in such a way that consumers are not forced to pay anything for the past mismanagement of the utilities. **There should be no mismanagement tax**.

A further way to lessen the amount of "stranded costs" is to make sure that any supposed losses to the utilities as a result of deregulation and competition are balanced against profits which the utilities make as a result of the same factors. The utilities should not be able to separate their increasingly profitable activities into separate subsidiaries or affiliates, and then argue that it is

improper to balance profits and losses together to come up with a net figure.

V. CONCLUSION

Technological, economic and political changes have created a new playing field in the electric power industry. The days when the utilities in Massachusetts could pass on their high costs — largely the result of bad investments and mismanagement — are over. The monopoly system which allowed the utilities to do this in the past is ending. So now the utilities are desperately trying to make one more score on the old playing field: getting their customers to bail them out for their past mistakes. Not only would this be a windfall, but it would allow the utilities excessive and unfair power against their power producing competitors in the coming free market. It will not be possible to have a true free market for a long time to come if the government steps in a creates a multibillion dollar subsidy for one set of firms while leaving the rest of the power generation industry "free" to compete.

But further, as this report shows, allowing the utilities to collect their "stranded costs" will mean that customers will be sacrificing an opportunity to obtain hundreds of dollars of savings per year on the electric bills, and residents of Commonwealth will be sacrificing the opportunity to add almost thirty thousand jobs to the economy.

There is no reason to sacrifice or strand those savings and those jobs. Preferably, the utilities should be denied all collection of "stranded costs." But even a partial limit on this collection — such as New Hampshire has decided on — will be enormously beneficial to the citizens and businesses of Massachusetts.

March 21, 1997

Employment Impacts Due to the Allocation of Stranded Costs from Massachusetts Electric Utilities

Marc Breslow, Ph.D.

Introduction

As a result of deregulation of the electric utility industry, many power plants currently owned by regulated utilities will become uneconomical, since their total costs (capital plus operating) are higher than those of competitor generating sources. The question then becomes who will pay for the excess costs of these plants -- ratepayers or the utilities (meaning primarily their stockholders).

How these costs are allocated will have substantial effects on the economy of Massachusetts, and in particular on employment. This study forecasts those effects if ratepayers are required to pay for all the stranded costs -- essentially, if there is a large transfer of income from households in Massachusetts to utility stockholders. We utilize an estimate of $12.5 billion in stranded costs, as provided by the Massachusetts Department of Public Utilities. We first provide our results, then briefly discuss the methodology involved.

Results

Presumably the costs will not all be paid for in one year, which would cause an enormous, but very short-term economic

impact. Instead they are likely to be spread out over time. For purposes of this analysis we have used a 32-year schedule of "termination charges" calculated by New England Power Company. In this schedule a large proportion of the charges are imposed within the first years, with the balance declining rapidly over time.

Since the uneconomic plants are currently in the utility rate bases, ratepayers are presently paying the capital costs of these plants. So stranded costs will not actually cause rates to rise, but rather will prevent rates from falling as much as they could if the utilities absorbed the stranded costs themselves. Thus, we are faced not with employment "losses," but rather with employment "gains sacrificed." Table 1 below shows these foregone job gains during the first five years of the implementation of a plan to charge ratepayers for the stranded costs.

Table 1: Employment Gains Sacrificed if All Stranded Costs are Awarded to Massachusetts Utilities

Year	**Number of Jobs**
1	27,800
2	28,400
3	28,900
4	26,500
5	25,100

Should the stranded costs imposed on ratepayers be less than

$12.5 billion, the employment impacts would be reduced proportionately. For example, if stranded costs are $10 billion, the employment gains sacrificed would be approximately 22,260 in the first year.

Beyond the direct transfers between ratepayers and stockholders, there is also the possibility that how stranded costs are distributed will influence which power plants the utiliies decide to continue operating. While the answers to this question are at present speculative, it is possible that should the utilities be denied recovery of stranded costs on their uneconomic plants, they would decide to shut down these plants (despite the fact that the capital costs are "sunk costs" at this time). Conversely, should they be allowed full cost recovery they would be more likely to continue operating the plants.

If this is the case, then denial of cost recovery to the utilities could mean that uneconomic plants will be replaced by new construction of more cost-efficient plants, such as gas turbines. For this analysis we assume that 1,200 megawatts of such plants, the capacity of the Seabrook plant (but any combination of other plants totalling to this capacity could be used as a basis for calculations), are constructed. As a result, jobs would be created both during the construction phase (which we assume to be three years) and during the operating lifetime of the new gas plants. Table 2 below summarizes the possible employment gains.

Table 2: Employment Gains from Construction and Operation of 1,200 Megawats of New Gas Turbine Generating Plants (three years for construction jobs, lifetime of plant for operating jobs)

phase	jobs per year
construction	1,430
operation	530

Employment Impacts By Industry and County

The employment impacts shown in Table 1 can be estimated by industry. If the utilities are denied cost recovery for uneconomic plants, all electricity consumers -- residential, commercial, and industrial -- will have additional funds which they can spend on all their other costs of living or operation. The result will be increased sales for all businesses in Massachusetts, causing increased employment in all industries, as shown in Table 3 following (for the first year after implementation of a cost recovery plan).[1] The employment gains will be approximately in proportion to the relative sizes of these industries, with service industries (restaurants, health services, business services, miscellaneous services) dominating along with trade (retail and wholesale trade).

The employment gains sacrificed if the utilities are awarded full recovery of stranded costs can also be estimated on a

[1] Note that all employment figures in the text and tables have been rounded to the "tens" place, in order not to show a greater degree of precision than is warranted. Due to this rounding, there are slight differences between the totals shown in tables 1, 3, and 4.

geographic basis, based on existing population and employment levels. Table 4 following shows an estimate for the first year for the counties in Massachusetts. For the largest county, Middlesex, the losses would be about 7,600 jobs, while for Suffolk County they would be approximately 3,300 jobs.

Methodology

Employment impacts are estimated by the use of a methodology known as "input-output analysis," which examines the number of jobs yielded per dollar of spending by each industry. For this study we have utilized data for Massachusetts derived from the RIMS (Regional Input-Output Multiplier System) of the U.S. Department of Commerce.

If stranded costs are awarded entirely to the electric utilities, this constitutes a transfer of income from all electricity consumers in Massachusetts to the utilities. Thus, all commercial and industrial businesses will have higher operating costs (or, in other words, they will have less money to spend on other costs), and therefore their employment levels will fall. These direct effects, plus "indirect" effects that result from respending as these businesses make purchases from other companies, can be estimated with the RIMS model. Due to time and funding limitations, we have not been able to conduct a detailed analysis of the relative intensity of electricity use by each industry in Massachusetts. Rather, we have used employment levels as a proxy for electricity consumption, utilizing data from

County Business Patterns.

In addition, residential electricity consumers will have less money remaining after paying their electric bills. As a result, they will spend less on all their other consumption items, such as food, clothing, transportation, entertainment, medical care, and housing. All these industries will then have lower sales, reducing their employment. To estimate consumer spending patterns we have relied on data from the Bureau of Labor Statistics in the U.S. Department of Labor.

In recent decades, numerous analyses have shown that reducing energy consumption, and therefore funds going to electric and gas utilities, and to gasoline and fuel oil consumption, will have strong positive impacts on employment. (See, for example, Energy Efficiency and Job Creation: The Employment and Income Benefits from Investing in Energy Conserving Technologies, Howard Geller et. al., American Council for an Energy-Efficient Economy, 1992.) This result occurs because utilities and other energy-related activities yield far fewer jobs per dollar of spending than virtually all other industries, due both to their capital-intensity and to the large fraction of spending which goes to imports of fuel.

In the particular case of stranded costs, employment from providing funds to the utilities will be even smaller. Other analyses, such as that by Geller, have looked at provision of electricity through building additional power plants versus using electricity more efficiently -- with either alternative requiring

new economic activity. But whether or not stranded costs are provided to the utilities, they will continue to operate the transmission, distribution, metering and billing systems, while they or their competitors will continue to generate electricity. It is likely, therefore, that there will be no, or only a very small, loss of employment within the electric utility industry, and we have made this assumption. Less stranded costs do mean lower incomes for utility stockholders and possibly debtors (such as bondholders). But such funds are used primarily for investment purposes, not for consumption, and may be spent anywhere in the world. The effects on employment levels within Massachusetts businesses are therefore small.

In order to divide up the employment impacts by county we have assumed that residential consumption of electricity is proportional to population, while commercial and industrial consumption is a function of employment in the county.

For construction of new power plants which might be built to replace uneconomic plants that are retired, we have relied on data from the Electric Power Research Institute (EPRI) Technical Assessment Guide (TAG). TAG estimates both the capital and operating costs for new gas-fired turbine generating plants. Based on data for Massachusetts' share of nationwide manufacturing for the components of such plants, we have forecast that most of the employment due to such manufacturing would be out of the state. In contrast, most of the construction and planning labor would create employment within the state. For

operating costs, we have estimated that 75% of the fixed and variable operating and maintenance costs is in-state labor costs; while the fuel expenses yield no in-state employment.

Table 3: Job Gains Sacrificed By Industry: If Stranded
Costs Awarded to Utilities (first year)

Industry	Jobs Lost
Agricultural Products/Services	10
Forestry/Fishery	0
Coal Mining	0
Crude Petroleum/Natural Gas	0
Miscellaneous Mining	0
Construction	710
Food and kindred products	40
Textile mill products	40
Apparel	90
Paper/Allied products	40
Printing/publishing	220
Chemical and petroleum refining	30
Rubber/ Leather products	90
Lumber/wood prod. & furnish.	40
Stone/clay/glass	20
Primary metal	30
Fabricated metal	40
Machinery, except electrical	100
Electrical equipment	180
Motor vehicles and equipment	0
Transport equip. ex. motor veh.	20
Instruments and related products	140
Misc. Manufacturing	40
Transportation	730
Communication	230
Electric/Gas/Water/Sanitary Serv.	60
Wholesale Trade	1,350
Retail trade	5,590
Finance	960
Insurance	1,180
Real Estate	70
Hotels/Amusements	800
Personal Services	560
Business Services	1,960
Eating/drinking places	2,290
Health Services	4,320
Miscellaneous Services	5,810
Total	27,790

Table 4: Job Gains Sacrificed By County If Stranded Costs Awarded to Utilities (year 1)

County	Number of jobs
Barnstable	880
Plymouth	2,040
Dukes	70
Worcester	3,230
Essex	3,090
Bristol	2,290
Middlesex	6,750
Suffolk	2,930
Norfolk	2,980
Franklin	330
Hampshire	690
Hampden	1,930
Berkshire	590
Nantucket	40
Total	27,830

About the Authors

John T. O'Connor is the president of Greenworks. In 1983 he founded the National Toxics Campaign, and in 1986 led the coalition that passed the landmark $9 billion Superfund law. His writing credits include: *Who Owns the Sun* (1996), *A Practical Guide to Preventing Lead Poisoning* (1994), and *Fighting Toxics* (1990). Among his published essays is "The American Promise," in *Heaven Under Our Feet*, edited by Don Henley and Dave Marsh. His work has been featured on *The Today Show*, *20/20*, *McNeil-Lehrer New Hour*, *Good Morning America*, *Capitol Journal*, the ABC, CBS, and NBC network news, CNN and its *Network Earth* program.

Edward Kelly is the Program Director of the Jobs and Environment Campaign. From 1992 to 1997 he was the Executive Director of Citizens Action of Massachusetts, a statewide consumer and environmental organization. Previously, he was a partner in the law firm of Shapiro, Hays and Kelly, P.C. Kelly is the author of Industrial Exodus (1979) and many articles on environmental and economic development issues. Kelly holds a J.D. from Harvard Law School and an A.B. in Philosophy from Boston College.

Special Thanks

We are very grateful to the many people who contributed to this report. Dr. Marc Breslow took time off of his busy schedule to direct our input-output analysis of stranded costs and other net economic impacts. Dr. Richard Rudolph lent his expertise on issues of nuclear power. Eamon Kelly turned in another expert performance in producing the charts and graphs. Terrence Smith provided valuable advice. Rob Sargent and Laura Scott from MassPIRG, Cindi Luppi from Clean Water Action, Carol Keisacker from Boston Oil Consumers Alliance, Patty Lynn from Citizens for Safe Energy and other participants in Consumers for Affordable, Clean Electricity have provided valuable insight and advice. Charles Gamer has been an ongoing source of understanding. Micheal Flaherty, Shawn Murphy and the rest of the staff at Greenworks provided invaluable assistance and feedback throughout the report.

Finally, we would like to thank everyone who has participated in the ongoing meetings on electricity restructuring sponsored by Greenworks and the Jobs and Environment Campaign. We are truly indebted to all.

John T. O'Connor

Edward Kelly

March, 1997

About the Publisher

GreenWorks, Inc. is an innovative privately financed business incubator committed to supporting emerging green businesses. GreenWorks provides promising new businesses with access to the intellectual and financial capital necessary to develop a successful and self-sufficient company.

Strategically located in the heart of Cambridge's legendary high-tech square, the Greenworks campus provides resident businesses with a complex set of essential business services, access to a seed capital fund, and laboratory testing in a modern, on-site chemical testing laboratory. GreenWorks business mentors like Phil Villers, founder of Computervision, and Paul Korian, a member of the founding management team of Staples, offer advice and counsel to entrepreneurs in all aspects of their business development. By providing these critical resources to promising entrepreneurs, GreenWorks hopes to fuel new innovations and create a competitive work force experienced with the growth industries of the next century.

The Jobs & Environment Campaign (JEC) is non-profit organization that is working to achieve economic and environmental justice. JEC blends local action with technical expertise in a nationwide effort to create sustainable communities that are more prosperous, environmentally sound and socially just.

JEC assists community groups, individuals and coalitions through two avenues: the Community Resource Center and the Citizens Environmental Laboratory (CEL). JEC's Community Resource Center offers information and training on issues relating to the environment and sustainability while The Citizens Environmental Laboratory performs full service analytical testing and provides technical assistance to the grassroots movement.

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The Federal Energy Regulatory Commission Chair, Elizabeth Moler, stated in March, 1995 that "utilities cannot be expected to be willing participants in restructuring unless their prudently incurred costs are recovered." President Clinton's Council of Economic Advisers has stated that "recovery should be allowed for legitimate stranded costs."

So, stranded investment recovery is not some clever bailout but a necessary part of restructuring. We shall have pain enough. We have been required to sell our fossil and hydroelectric plants and to seek to divest our other generating interests. The initial stranded investment charge of 2.8 cents per kilowatt-hour is less than the 3.4 cents now in our rates for these items, and the proceeds from selling our plants will further reduce the stranded investment charges.

The restructuring plans now before the Legislature will result in immediate savings for all consumers and make possible even larger savings in the future. In Massachusetts Electric's pilot programs, residential and business customers have saved between 5 and 18 percent as we recovered our stranded costs.

Those who advocate less than full recovery should support full deregulation. Utilities like mine eagerly would embrace the opportunity to have an upside on our wires under full deregulation, which would offset the downside for our generators.

But those who think the state should stay on the fast track to change — with all the immediate benefits a restructured industry offers — should support these efforts, and urge their utility to do the same. □

John W. Rowe is president and chief executive officer of New England Electric System.

JOHN T. O'CONNOR

■ Plan isn't consumer-friendly

Considering that Massachusetts has some of the highest electric rates in the nation, it should come as welcome news the Legislature has announced its plan to deregulate the electric-utility industry.

In theory, deregulation would let customers shop for electricity the way they select a long-distance phone company. Not only could this new choice mean savings, it could also prove beneficial to the environment, giving customers the option of selecting environmentally sound "green electricity" like solar power. Yet instead of ushering in a new age of cheaper, cleaner electricity, the present Massachusetts "deregulation" looks like a lost opportunity.

Deregulation, as first advocated by Attorney General Scott Harshbarger and now by Gov. William Weld and many legislators, will not save consumers nearly as much as it should. This is because of a new legal fiction invented by the utility companies called "stranded costs." Stranded costs is the euphemism that the government-protected utility monopolies use to describe the huge debts incurred from investments in nuclear power and other projects that didn't work out. The current scheme slaps consumers with an "access charge" (read "excess" charge) to pay for these stranded costs, regardless of whom they choose to supply their electricity. In Massachusetts, stranded costs are estimated at more than $10 billion.

Who should pay for these bad investments? The attorney general and the governor think everyday ratepayers, not utility shareholders, should foot the entire $10 billion bill. While this is just more bad news for most Massachusetts residents, it's great news to the shareholders and bondholders, most of whom live out of state. They are expected to enjoy a nearly 12 percent return on equity in 1997, while the rest of us are supposed to be content with the prospect of lower electricity rates.

But how real a prospect is this? Not a very real one, according to most utility executives. Business Week magazine reports that last fall the Washington International Energy Ltd. Consultancy asked utility executives whether competition would significantly reduce the average family's electric bill. A whopping 82 percent answered "No." If ratepayers were truly allowed to pay the lowest price, they could cut their electric bill by a full third. Yet the current plan only guarantees a modest 10 percent reduction, and that is for just one year.

If Massachusetts residents do not insist on better treatment than the current scheme, they will scatter the same fate as the people of California. There, a similar plan slid through the Legislature before most residents knew what had hit them. The new law socks electricity customers in the Golden State with 100 percent of so-called "stranded costs." The bailout is expected to cost families more than $3,375 each through the year 2001. The director of one Washington-based business lobbying group was quoted as saying that it was "not fair to require customers to pay for 100 percent of the mistakes that have been made by the California electric industry."

Clearly, there are a number of better ways to use consumers' money than to bail out wealthy utility shareholders. One of the most promising ways is to invest money in energy-efficient and solar technologies. It looks like the Massachusetts Legislature will once again confuse aid to corporations with aid to families. During the past few years, the state has invited wealthy corporations like Raytheon and Digital Equipment to feed at the public trough, only to see these subsidized businesses lay off workers. And as aid to the poor and other worthy programs continue to get slashed, aid to dependent corporations seems to be one entitlement few elected officials care to challenge.

Deregulation will only come around once. The Legislature should reject the current scheme and adopt one that is more friendly to the consumer, to the local economy and to the environment. If it truly wants to create a system that will be fair to consumers and businesses in the future, it must be fairer about who should pay for the mistakes of the past. □

John T. O'Connor is president of Greenworks, a Cambridge company that helps environmental companies get started.

Power play

Comm. # 12

Communication received from John T. O'Connor transmitting a report entitled Stranded Costs, Stranded Opportunities regarding the deregulation of the utility companies.

In City Council,

March 31, 1997

Referred to Calendar Item Number One.

CCM-101

City of Cambridge

Calendar Item # 1
~~16.~~

IN CITY COUNCIL

~~March 24, 1997~~
March 31, 1997

COUNCILLOR GALLUCCIO
COUNCILLOR DAVIS
COUNCILLOR DUEHAY
COUNCILLOR REEVES
MAYOR RUSSELL
COUNCILLOR SULLIVAN
COUNCILLOR TOOMEY

WHEREAS: In order to make the new system of deregulation of the electric utility industry work well for residential and small business customers, a means should be established for them to join together into larger buying units to compete with large corporate customers for lower prices; and

WHEREAS: To accomplish this, municipalities could purchase electricity on behalf of their residents and businesses, with the exclusion of the residents or businesses who choose to opt out of the group; and

WHEREAS: This would enable a municipality to become a large enough buyer to be able to purchase electricity at lower prices on the competitive market; and

WHEREAS: The City could start this process by undertaking a comprehensive study of the ways Cambridge could act as a buyer of electricity for its residents and businesses; and

WHEREAS: This study should include the following:
- economics of the plan; and
- legal issues of the plan; and

WHEREAS: By understanding this study the City will be better able to help its residents and businesses when the deregulation of the electric industry occurs; now therefore be it

ORDERED: That the City Manager be and hereby is requested to being the process of the comprehensive study and at the same time begin to set up a municipal buying pool to buy electricity and allow consumers to benefit from the deregulation of the electric utility industry.

In City Council March 31, 1997.
Adopted by the affirmative vote of eight members.
Attest:- D. Margaret Drury, City Clerk.

A true copy;

ATTEST:- D. Margaret Drury

D. Margaret Drury
City Clerk

CCM-101

City of Cambridge

16.

IN CITY COUNCIL

March 24, 1997

COUNCILLOR GALLUCCIO
COUNCILLOR DAVIS
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CHARTER RIGHT WAS EXERCISED BY COUNCILLOR GALLUCCIO.

Councillor Galluccio

(6)

Whereas:

IN order to make the new system of deregulation of the electric utility industry work well for residential and small business customers, a means should be established for them to join together into larger buying units to compete with large corporate customers for lower prices; and

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Whereas:

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Whereas:

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for its residents and businesses; and

Whereas:

This study should include the following:

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- legal issues of the plan; and

Whereas:

By undertaking this study the City will be better able to help its residents and businesses when the deregulation of the electric industry occurs; now therefore be it

Ordered:

That the City Manager be and hereby is requested to begin the process of the Comprehensive Study and at the same time set up a municipal buying pool to buy electricity and allow consumers to benefit from the deregulation of the electric utility industry

undertake study now of

report back on plans &

timeline for study

Attention City Manager, Bob Healy,

The electric utility industry, which has for many years been a regulated monopoly in Massachusettsand throughout most of the United States , is rapidly moving towards partial deregulation. In Massachusetts, the Department of Public Utilities is pushing for deregulation by January 1, 1998. The Legislature is now considering the best means for achieving deregulation.

Among the various proposals under consideration, a competitive market for electricity would be established. Under a deregulated system, all consumers -- residential, commercial, industrial and governmental -- would be free to choose from whom to purchase power. We will all be able to shop for electricity from what will likely be a wide range of generators and suppliers.

5

Such a system may mean that we can all seek out the best deals, in terms of price, reliability and environmental factors. This may provide good deals only if consumers are not required to pay for the previous bad investments of the utilities. It is most likely that the best deals will go to the big corporate customers who are able to buy up all the low cost power leaving residential and small business customers, who will have much less market power, with higher cost choices.

of Deregulation

Whereas each sustain

In order to make the new system work well for residential and small business customers, a means should be established for them to join together into larger buying units so that they can compete with the large corporate customers for the good deals available. A way to do this is for a municipality to buy electricity on behalf of the residents and businesses in the community, except for those which choose to opt out of the group. If a municipality does this, it should be able to be a large enough buyer to purchase power at lower prices on the competitive market.

Cambridge may be able to become such a buyer and thus realize the savings in the electricity market that will likely be available after January 1, 1998. The way to begin this process would be for the City to undertake a comprehensive study of the various possible ways that it could act as a buyer for its residents and businesses. Such a study would examine both the economics of such a plan, and all legal issues connected with it. By undertaking such a study now, the City will be well positioned to act in the interests of its residents and businesses when deregulation does take place.

ordered on note pad

Sincerely,

Anthony D. Galluccio

4) Invite members of the hotel [redacted] and Restaurant community to create a Job Fair for Cambridge residents

~~5) Invite members of~~

5) ordered City Manager [redacted] begin the process to set up a municipal buying pool to buy [redacted] electricity and allow consumers to benefit from

The deregulation of the

electric utility Industry.

6)

CCM-101

City of Cambridge

16.

IN CITY COUNCIL

March 24, 1997

COUNCILLOR GALLUCCIO

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DAVIS, Duehay, Reeves, Russell, Sullivan, Toomey Cal

Consent ORder #16

Councillor Galluccio re: A comprehensive study of the ways Cambridge Council act as a buyer of electricity for its residents and businesses.

5-187

3/31/97 Order adopted

In City Council March 24, 1997

CHARTER RIGHT
BY Councillor Galluccio