

Fiddling While Rome Goes Dark: the Meaning of 8/14 for Connecticut

By Arthur W. Wright

In the Summer 2000 issue, Brian Kench and I surveyed the incomplete “deregulation” or (better) restructuring of the Connecticut market for electric power. Today, three years on, the latest Great Northeastern Blackout this past August 14 is a stark reminder that the tortuous process still has a long ways to go in Connecticut and the rest of the country. Unless we act soon, and with resolve, 8/14 will prove an augury of the future. Next time our state may not get off so lightly, and the “next time” is not a matter of *whether* but *when*.

The proximate causes of 8/14 were dumb bad luck at two Midwestern utilities and weak governance of their rickety regional grid. But the underlying source of the outage was the still incomplete restructuring of the nation’s electric power system—in particular, continued mispricing of electric power and a lack of will to make long-overdue institutional changes. The resulting uncertainties are impeding the major investments, especially in transmission, that must be made if we are to avert further widespread blackouts.

A fix for both pricing and institutions will require leadership capable of overcoming both entrenched state or regional interests and political grandstanding about “protecting consumers.” Connecticut, a small state, is not in this alone, but state politicians must be part of the solution, not naysayers standing in the way of progress. If parochial interests and small minds prevail, we will deserve the old Louisiana epithet from the dawn of the Energy Crisis 30 years ago: “Let the bastards freeze in the dark.”

In this age of technological miracles, how could seemingly innocuous problems at a couple of Ohio electric utilities cascade into a prolonged, costly outage covering many thousands of square miles and millions of customers? It wasn’t easy.

Cooking Up a Blackout

Start with a power network linking the lower Midwest, Ontario, New York, and New England, with system capacity still trying to catch up with the vigorous demand growth of the 1990s. Add system control that relied on a merely advisory Independent System Operator (ISO), and interutility communications requiring minutes when, in a crisis, every second counts. *Voila!* Disaster.

The ISO itself is only a few years old, one of the paltry products of what is now referred to tongue-in-cheek as “electric power deregulation.” This grab bag of half- and quarter-measures cobbled together since the 1980s took its inspiration from the earlier deregulations of transportation, oil-and-gas, communication, and banking beginning in the late 1970s. Alas, “restructuring” electric power by moving from the old regulatory regime to a new one, was inherently messier than in those other sectors.

First, the technical challenges inherent in the physics of electricity are much more complex. As 8/14 demonstrated only too well, if power systems are not properly coordinated, imbalances can easily spin out of control and spread far and wide.

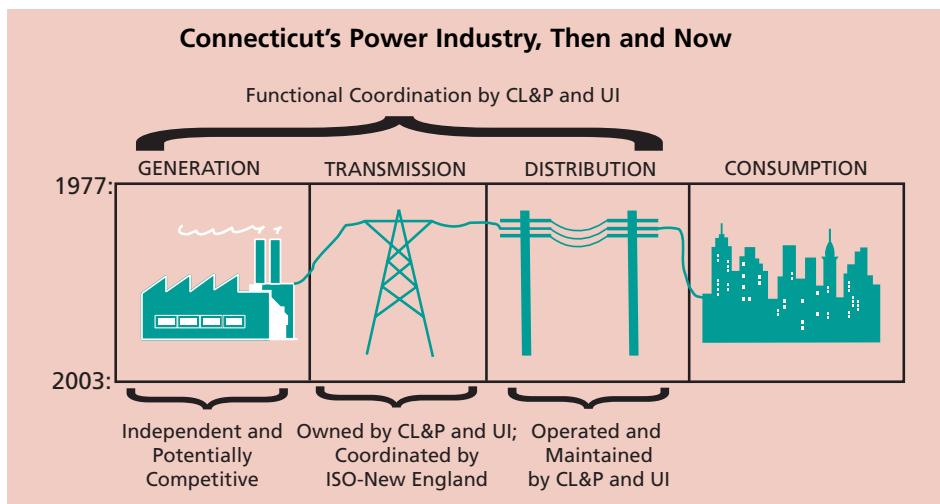
Second, the tattered tapestry that was the old system of regulation had just grown, like Topsy, for nearly a century, with responsibility fractured among the contiguous American states and Canadian provinces and the two countries’ Federal governments.

Third, state public utility commissions (PUCs) have long jealously guarded their ability to control rates and investments, which give them (and the politicians who appoint them) their political clout. Add regulated rates that favor smaller users and that respond only with a lag, if at all, to changes in costs, and you get power prices that systematically ignore demand signals throughout most of the electric power system.

Paving The Road to Hell

Well-intentioned restructurers of electricity markets tried to deal with the complexity by dismembering the integrated power companies that had long combined all three stages of production—generation, transmission and distribution—under the same roof. (See the diagram; also see Stanley McMillen’s article on page 18.) The original rationale for regulating power markets was the familiar one: economies of scale that make one supplier in a market more efficient than two or more. But significant scale economies in generation disappeared more than 30 years ago, so the existing franchise-monopoly regulation was now simply protecting incumbents against competition from new, more efficient generators. Thus, traditional utilities like United Illuminating (UI) and Connecticut Light and Power (CL&P) were told to sell off their generating plants.

At the same time, long-distance transmission systems were facing ever



increasing challenges, as regional power markets expanded. Restructuring the ownership and governance of transmission lines has proved to be a tougher nut to crack than forcing electric utilities out of the generating business. Inducing them to invest in more transmission capacity or to share their existing capacity as part of new, better-integrated regional systems has been hobbled by disputes over financing (who should pay how much for what?), and pricing (who should be able to charge how much for what?), and by mutual suspicions of the motives of neighboring utilities. The result has been added uncertainty about what the ultimate restructured systems will look like—further weakening utilities' investment incentives.

Alphabet Soup

The Federal Energy Regulatory Commission or FERC, which has jurisdiction over interstate commerce in power, has attempted to tighten up the regional grid networks by phasing in a new system. The basically advisory ISOs, like the one in the Midwest, introduced in phase one, are supposed to gradually morph into more powerful Regional Transmission Organizations or RTOs, which would have sole authority over a region's grid. The RTOs' authority would cover mainly transmission lines, but could also extend to the siting of new generating capacity where it affects system reliability.

FERC's initiative on ISOs and RTOs has of course provoked squabbling among utilities and outright opposition from state and local officials and consumer groups. If fully implemented, the initiative would wrest considerable power away from state PUCs. Making utilities sell off their generating capacity was easy for PUCs, but forging new regional transmission systems is a tortuous process of multistate negotiation and crafting of new rate schedules to finance improved power lines. Even harder will be inducing the PUCs to reform their rate-setting habits.

"It's the Price, Stupid!"

The term "demand" to any A-student in Econ 101 means an inverse relation between quantities demanded and unit prices. Not so in the regulated-electric utility business, where "demand" refers to "system load"—that is, to quantity supplied. The classic "service obligation" of regulated franchise-monopoly electric utilities means the ability at all times to meet all demand (see Leon Olivier's article on page 20). As a result, unlike most other markets, higher power prices cannot help ration use to ease the strain during rough patches.

If that sounds a lot like the wringer that California put itself through in 2001, it should. Rationing there was excruciatingly painful, with rampant rolling blackouts and brownouts (voltage reductions) that can damage equipment. Allowing rates to rise to clear the market would have been far more efficient—and much less inconvenient. Governor Arnold Schwarzenegger has vowed to lift California out of its power woes by reopening the restructuring effort abandoned by his predecessor in a pell-mell retreat into hugely expensive long-term power contracts. The former Mr.

Universe rates an A in Econ 101 for favoring more competitive pricing.

Workable technologies for rationing power by price-elasticity of demand already exist. Better methods of allowing customers to monitor varying prices and respond to them would doubtless emerge, were power rates freed up. Meanwhile, by neglecting different customers' sensitivities to electricity rates, we're raising the risk of crises like California's and 8/14, and condemning ratepayers to paying for excess capacity.

True, proposing any change that *might* raise electricity rates in the short run would elicit howls of protest from "consumer" representatives, be they state- or self-appointed. But the latest *Webster-UConn Survey* shows more than half of respondents at least willing to consider paying higher rates. And opposing short-run rate increases, especially on the heels of a half-decade of price caps, is the epitome of short-sighted behavior. In the long run, consumers' true interest lies in allowing market dynamics to work themselves out. If the end result is higher rates, suppressing rate increases will only produce underinvestment and shortages—that is, more blackouts.

Chicken Soup for the Ailing Restructuring Process

Here's my own home remedy for what ails the restructuring of the U.S. power system.

Regional problems demand interstate solutions, so the basic stock should be new Federal legislation. This bill should be broad and enabling, not narrow and detailed, so as to minimize the self-interested logrolling that too often plagues such legislative efforts.

The new legislation should scrap the hoary Public Utility Holding Company Act (PUHCA) of 1935, following the lead of other industries in throwing off the chains of old New Deal arrangements. PUHCA's limits on power-company organization, for instance, probably were never a good idea, but especially not today.

The new law should also broaden and strengthen the powers of FERC, giving it greater say in the myriad decisions required to bring what is a clear case of interstate commerce, vital to the nation's economic future, kicking and screaming into the 21st century. FERC needs more discretion in designing and managing the interstate power transmission network, including investment in new capacity, siting new generating capacity, and compelling regional oversight bodies to move to RTO status. The agency should also require state PUCs to address pricing issues, as part of approving the various regional restructuring plans. Legislators, in crafting this law, must be held to account in resisting parochial opposition to the reduction of state and local influence implicit in it.

Finally, the bill should include a directive to work with the governments of Canada and Mexico to coordinate our policies with theirs but (more) to persuade them to match our policies, thus protecting the U.S. power system from cross-border disruptions.