Blackout: Enron-Style Dereg Strikes Again in U.S.

by Marsha Freeman

Although the sudden loss of electricity on the afternoon of Aug. 14 was an unexpected event for the millions of people affected, there have, in fact, been warnings for years about the fragility of the nation's intricate electric transmission system. The policy of deregulating the electric utility industry, which has been on the march since 1992, turned an already decrepit infrastructure into a catastrophe waiting to happen. Those who thought that only California's dereg-ravaged electricity system was vulnerable to collapse were in for a rude awakening.

Leaving electricity generation and transmission to the greed-motive of the "marketplace," has both overloaded the existing transmission system—as producers use it in ways it was never intended, to help increase their profits—and prevented investments in an already-undercapitalized industry from being made to upgrade and modernize the system.

It will take days, if not weeks, to determine the direct cause and precise timetable of events that resulted in the loss of electricity to about 50 million people, in six states in the Northeast and Midwest of the United States and in Canada, in the late afternoon of Aug. 14. It is known that terrorism, such as physical tampering with equipment or transmission lines, or the "hacking" of computers known as "cyber terrorism," was not a factor. It is also known that it was not stress on the transmission system due to a surge in demand—only 75% of the power-generating assets of the region were in use at the time.

As of Aug. 15, experts at the North American Electric Reliability Council (NERC) were able to tell reporters that the problem began in the transmission system known as the Great Lakes Loop, which circles Lakes Erie and Ontario, connecting upstate New York, west to Ohio, north to Detroit, east through Ontario, and back to New York. The upstate New York grid is then connected to New York City and environs.

Within nine seconds, a destabilization in that transmission loop propagated through the multi-state regional Eastern Connection, causing an instability that automatically shut down more than a dozen nuclear power plants in Canada and the United States and more than 80 fossil fuel generating plants. The automatic shut-down protected the equipment from damage.

In total, more than 61,000 megawatts (MW) of capacity was lost in the outage, which is about 10% of the capacity in the entire region east of the Mississippi River. By 9:00 the following morning, more than 48,000 MW had been restored; an impressive recovery.

Within two hours of the blackout, President Bush made a statement—ironically, from San Diego, California, the poster-state for blackouts caused by deregulation. Asked if he thought the electric grid were vulnerable, Bush replied, "We'll have to look and determine whether or not our grid needs to be modernized."

The energy bill that is before Congress, which was crafted by energy industry magnate Vice President Dick Cheney, includes the repeal of the 1930s Public Utilities Holding Company Act (PUHCA)—which regulated the electric utility industry, vectoring it to serve the general welfare. Any more "modernization" of this kind and the United States will have, as industry experts have warned, a "Third World" electricity system.

No national political figure, except Lyndon LaRouche, has proposed a solution to this crisis: Put the toothpaste back in the tube, reverse deregulation, and institute a long-term capital investment program for energy infrastructure. No doubt the immediate initiating event for the blackout will be found, but until the policy is changed, the system is still at risk.

Electric power deregulation, Federal policy since 1992, has been increasingly misusing and overloading the nation's system of transmission lines, as power is wheeled around the country for no reason but "buy cheap, sell dear." The Aug. 14 blackout could be seen coming, and would have been more extensive had the Summer weather not been mild.

Plenty of Warnings

Since the mid-1980s, NERC has warned that additions to the nation's transmission grid were seriously lagging behind what was necessary, resulting in stress on the system that would eventually lead to failures.

The interconnection of local and regional transmission wires was instituted to be able to transfer electricity from one system to another when needed, to improve reliability, and prevent outages. However, in 1986, NERC reported that the inability of utilities to add needed generating plants in certain regions, thanks to environmentalist sabotage of new nuclear and coal-burning capacity, had led to the "wheeling," or transport of power from more power-rich regions to those with deficits, on a nearly continuous basis. The grid was never designed for such a purpose.

As reported in the April 11, 1986 issue of *EIR*, in the Mid-Atlantic states, the capacity utilization of the transmission lines was 97% by 1984, and 92% in the Western states. This meant that were emergency power needed to stabilize a weak system, transmission capacity would not be available to carry it. New York is indicative of the problem. Rather than fight the environmentalists and build new local power plants, state officials decided to buy power from Canada, transporting it hundreds of miles.

At a post-blackout briefing for reporters on Aug. 15, NERC's Michael Gent stated that the U.S.-Canadian Great Lakes Loop transmission system has "been a problem for years." He stated that plans to beef up the system, using cables underneath Lake Erie, have never been carried out.

A bottleneck in transmission capacity in New York has also created a situation where the city cannot import any more power from outside than it does currently. Consequently, additional electricity can only be distributed if it is produced within the city limits. Two years ago, 10 small, portable gas-burning generators had to be quickly deployed, military style, to head off possible Summer shortages, because the purpose of the regional grid—to fill temporary shortages from neighboring systems—had been short-circuited by lack of transmission capacity.

Enter, Deregulation

In 1992, the Federal Energy Regulatory Commission (FERC) ruled that the transmission system would no longer be used only by bona fide electric utilities, but would be opened to any electricity producer. At the same time, FERC allowed the waiver of PUHCA regulations, opening the door to unregulated, speculation-driven mega-corporations, the Enron likes of which later destroyed California's electricity system. By 1996, FERC required that non-utilities would have access to the transmission grid, and that utilities had to establish electronic systems to make their capacity available to anyone.

At the same time, NERC was issuing warnings in its annual Summer Assessment reports year after year, that the Midwest, New England, Ontario, Michigan, and New York "could experience electricity supply problems," and that "transmission constraints will limit how much assistance others can provide to these areas if deficiencies occur."

Since the rush toward deregulation in the late 1990s, the situation has rapidly deteriorated. Unregulated mega-corporations, which have bought local utility generating assets rather than build new power plants, are wheeling cheaper power from hither and yon to make more of a profit. It has gotten to the point that officials of the Tennessee Valley Authority system—the largest power generator in the nation—have complained to regulators that so much power—neither produced nor used by the TVA—is flowing through its transmission system, that the congestion is preventing it from expanding its own production capacity, and putting the grid at risk.

In April 2000, David Cook, General Counsel for NERC, testified before the Senate Committee on Energy and Natural Resources, stating that the once-voluntary reliability compact had been wrecked by "competition," and that now, mandatory standards and rules for reliability are needed. "The longer it takes to establish this new system, the greater becomes the risk and magnitude of grid failures," Cook warned.

One year later, Cook insisted again that the grid was not designed for "economy" transactions, to "move large blocks of power from one part of the country to another, across multi-

Heat Wave Shows Euro Power Low

The extraordinary late July-early August Europe-wide heat wave exposed—at the cost of many lives among the elderly and very young—the urgent need for a "European New Deal" of infrastructure investment, centered on transport and power, as proposed in Italy's Tremonti Plan, but larger. The record heat caused wide blackouts and showed the gross electrical *incapacity* and lack of investments in European energy infrastructure, which has "deregulated" disastrously in recent years. *EIR* had reported the capacity shortfalls, developing country by country, in "Europe's Electricity Supplies Headed California Way" (July 25), and had warned then that the late-June blackout in throughout Italy was only a foretaste of the problem.

Throughout Europe, the generating capacity of gas, coal, or nuclear power plants was further reduced as the rivers used for cooling water overheated. Hydroelectric generation in Northern Europe was hit by low water levels. In Germany, 13,000 megawatts of wind energy capacity stood idle, as there simply was no wind. On the European spot and futures markets, where excess power production is traded, electricity prices sky-rocketted by 1,000% and more.

France, Europe's biggest surplus electricity producer, was shown to have insufficient capacity itself, especially as major institutions, including hospitals, lacked life-saving air conditioning. National mortality increased, with thousands of deaths caused by the searing heat, well above 100° Fahrenheit for ten straight days. About one-quarter of France's 58 nuclear plants were shut down, due to maintenance and overheated rivers. Electricité de France, the state-owned power giant, stated on Aug. 11, "The heat wave, which continues in Europe and exceeds the historical records of 1949, could have serious and significant consequences for French electricity."

Also on Aug. 11, the Netherlands grid administrator, TenneT, issued a "code red" warning, meaning that power blackouts could not be ruled out. Through Northern Europe, reservoirs feeding hydroelectric stations are one-third lower than their normal levels. Citizens have been warned to expect another electricity price shock come Winter, if heavy rains do not materialize.

In Germany, the power companies EnBW and Vattenfall Europe warned on Aug. 12 that they may have to impose power blackouts in parts of Germany, a step never taken before. EnBW had been relying on power imports from France, which stopped; and had to reduce production capacity at its Neckarwestheim and Philippsburg power plants. Three countries had already imposed rolling power blackouts by Aug. 12: Belgium, Italy, and Portugal.

Electricity prices in France, Britain, and the Netherlands reached all-time record highs on Aug. 11. In Britain, prices doubled within a few hours to $160 per megawatt-hour, following a warning by National Grid that day, that it might no longer be able to meet demand. Spot prices for electricity at the Leipzig exchange stood at 20 euros in early August, reached EU 60 on Aug. 6 and averaged EU 116 on the following day. In France, the average immediate delivery electricity price on the Powernext exchange hit EU 606 on Aug. 11. Power prices at the APX Amsterdam exchange at one point on Aug. 11 reached EU 1,799.—*Lothar Komp*

ple systems." He continued, "Some entities have made the economic judgment that it is less costly to them to violate the rules than to follow them." These violations put the entire system at risk.

At his press briefing on Aug. 15, asked by *EIR* about the impact of "economy transfers" on the likelihood of blackouts, NERC CEO Michael Gent stated that the economy transfers have "added congestion" to the system, and have made them more "complicated to operate." He said NERC "thought we were on top of these added transfers," but NERC's team will see what effect they had, in their investigation into the blackout.

In 1965, an outage on a 230-kilovolt transmission line in Canada led to a series of failures that in minutes resulted in power swings that produced a cascaded outage, blacking out 30 million people down the East Coast for up to 13 hours. NERC was formed in response to what became known as the Great Blackout.

In July 1977, when a transmission tower north of New York City was struck by lightning, power could not be transmitted to the city, and generation inside the city was not enough to serve the load. The system collapsed. While 9 million people in New York City were left in the dark for up to 26 hours, no other systems were affected. The reliability rules NERC had put into effect, worked.

At his briefing, NERC head Gent stated that he was "embarrassed" by the blackout, because "the system was designed for this not to happen."

But the system that NERC designed, to ensure the reliable delivery of electric power, no longer exists. It has been hijacked by speculators with an "Enron mentality." Regulatory oversight from Washington has been hijacked by "free market" ideology that sees electricity as a "commodity," and does not want to interfere with corporate and personal greed.