

**Summary of Testimony of
Pat Wood, III
Chairman, Federal Energy Regulatory Commission
Before the Committee on Energy and Commerce
United States House of Representatives
September 3, 2003**

The United States-Canada Joint Task Force, with assistance from the Federal Energy Regulatory Commission (FERC or the Commission) and others, is working to identify the cause of the blackout and the steps needed to prevent similar events in the future. Analysis of the blackout is ongoing, and it is too early to know what caused the blackout or why the blackout cascaded through eight states and parts of Canada.

In recent years, the use of the grid has expanded significantly. During the same period, however, expansions of the transmission grid have lagged increases in both generation and the demand for electricity. Transmission capital investments and maintenance expenditures have steadily declined. We must change this pattern. We also must improve the grid management tools available to control center staff by adding, *e.g.*, new digital switches, additional monitoring and metering equipment and better communication equipment.

Currently, there is no direct federal authority or responsibility for the reliability of the transmission grid. The Federal Power Act (FPA) contains only limited authorities on reliability. Since the electric industry began, reliability has been primarily the responsibility of the customer's local utility. Depending on state law, utilities may be accountable to state utility commissions or other local regulators for reliable service.

Congress is considering legislation that could promote reliability in our wholesale power markets. First, this legislation should provide for a system of mandatory reliability rules established and enforced by a reliability organization subject to Commission oversight. Second, H.R. 6 properly endorses, in a "Sense of the Congress" provision, the formation of regional transmission organizations (RTOs); Congress can direct this effort to be completed. Third, H.R. 6 appropriately provides greater legal certainty for the Commission's efforts to adopt rate incentives for transmission or other investment to alleviate congestion on the grid, including new transmission technologies. Fourth, Congress can also provide economic incentives for transmission development by changing the accelerated depreciation from 20 years to 15 years for electric transmission assets, as in H.R. 6, and providing tax neutrality for utilities wishing to transfer transmission assets to RTOs. Finally, Congress should provide FERC (or another appropriate entity) with backstop transmission siting authority for certain backbone transmission lines, in the event a state or local entity does not have authority to act or does not act in a timely manner, may address this important concern. H.R. 6 contains such a provision.

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I. Introduction and Summary

The blackout experienced in the Midwest and Northeast on August 14, 2003 serves as a stark reminder of the importance of electricity to our lives, our economy and our national security. All of us have a responsibility to do what we can to prevent a repeat of such a blackout.

The United States-Canada Joint Task Force, with assistance from the Federal Energy Regulatory Commission (FERC or the Commission) and others, is working to identify the cause of the blackout and the steps needed to prevent similar events in the future. Analysis of the blackout is ongoing, and it is too early to know what caused the blackout or why the blackout cascaded through eight states and parts of Canada.

II. Steps Taken by FERC in Response to the August 14 Blackout

FERC staff based in Washington, D.C., and at the Midwest Independent System Operator (MISO) in Carmel, Indiana, have monitored blackout-related developments from the first minutes.

Directly after the blackout began, FERC staff members went to the U.S. Department of Energy (DOE) to coordinate our monitoring with DOE's emergency response team. At about the same time, FERC staff in the MISO control room began

monitoring and communicating the events around the clock until most of the power was restored.

During this time, FERC staff was involved in nearly 20 North American Electric Reliability Council (NERC) telephone conference calls with the reliability coordinators, assessing the situation. These calls also involved close coordination with our Canadian counterparts. Also, the on-site staff monitored other calls between MISO, its control areas, transmission-owning members, and other Independent System Operators (ISOs) and Regional Transmission Organizations (RTOs) in their joint efforts to manage the grid during restoration.

In Washington, D.C., FERC staff immediately mobilized to provide relevant information to the Commissioners and to others, including DOE. These communications included, for example, data on output by generating facilities and markets adjacent to the blackout area. FERC also gathered information from ISO and RTO market monitors for each of the ISOs or RTOs in the affected regions. Our staff closely tracked the markets to make sure that no one took advantage of the situation to manipulate the energy markets. Working with the market monitor for the New York Independent System Operator (NYISO), we tracked the New York market especially closely during the period when that market was coming back on line and during the first unusually hot days later in the week of August 18.

Currently, members of the Commission's technical staff are assisting the United States-Canada Joint Task Force on its investigation of the blackout. The Commission

will contribute resources to this effort as needed to ensure a thorough and timely investigation.

III. Background

A. **The Current State of the Electricity Transmission Grid**

The Nation's transmission grid is an extremely complex machine. In its entirety, it includes over 150,000 miles of lines, crossing the boundaries of utilities and states, and connecting to Canada and Mexico. The total national grid delivers power from more than 850,000 megawatts of generation facilities. The grid is operated at about 130 round-the-clock control centers, some large and others small. The large number of these control centers derives from the historical development of utility-franchised territories.

When a generating facility or transmission line fails, the effects sometimes are not just local. Instead, a problem may have widespread effects and must be addressed by multiple control centers. The utility staff at these centers must quickly share information and coordinate their efforts to isolate or end the problem. Given the speed at which a problem can spread across the grid, coordinating an appropriate and timely response can be extremely difficult without modern technology.

In recent years, the use of the grid has expanded significantly. The growth of our economy, and its increasing reliance on electricity, is the principal driver. Greater competition among power sources (wholesale power competition) has also increased use of the grid. The grid was built originally to interconnect neighboring utilities and to

allow them to share resources when necessary but is now used as a “superhighway” for broader, regional trading.

Transmission capital investments and maintenance expenditures have steadily declined in recent years. In the decade spanning 1988 to 1997, transmission investment declined by 0.8 percent annually and maintenance expenditures decreased by 3.3 percent annually. (Maintenance activities include such items as tree-trimming, substation equipment repairs, and cable replacements, all of which affect reliability). Power demand increased by 2.4 percent annually during this same time period.

Finally, perhaps even more important than adding transmission capacity, is improving the tools available to control center staff for operating the grid. One example is installing state-of-the-art digital switches, which would allow operators to monitor and control electricity flows more precisely than the mechanical switches used in some areas. Installing additional monitoring and metering equipment can help operators better monitor the grid, detect problems and take quicker remedial action. Improved communication equipment can help control centers coordinate efforts more quickly. The level of investment in these technologies has been varied.

B. Today’s Regulatory Framework

Currently, there is no direct federal authority or responsibility for the reliability of the transmission grid. The Federal Power Act (FPA) contains only limited authorities on reliability.

For example, under FPA section 202(c), whenever DOE determines that an “emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy . . . or other causes,” it has authority to order “temporary connections of facilities and such generation, delivery, interchange or transmission of electric energy as in its judgment will best meet the emergency and serve the public interest.”

Under FPA sections 205 and 206, the Commission must ensure that all rates, terms and conditions of jurisdictional service (including “practices” affecting such services) are just, reasonable and not unduly discriminatory or preferential. These sections generally have been construed as governing the commercial aspects of service, instead of reliability aspects. However, there is no bright line between “commercial practices” and “reliability practices.”

The explicit authorities Congress has granted the Commission in the area of reliability are very limited. For example, under FPA section 207, if the Commission finds, upon complaint by a State commission, that “any interstate service of any public utility is inadequate or insufficient, the Commission shall determine the proper, adequate or sufficient service to be furnished,” and fix the same by order, rule or regulation. The Commission cannot exercise this authority except upon complaint by a State commission.

The Public Utility Regulatory Policies Act of 1978 (PURPA) also provides limited authority on reliability. Under PURPA section 209(b), DOE, in consultation with the Commission, may ask the reliability councils or other persons (including federal agencies) to examine and report on reliability issues. Under PURPA section 209(c),

DOE, in consultation with the Commission, and after public comment may recommend reliability standards to the electric utility industry, including standards with respect to equipment, operating procedures and training of personnel.

Since the electric industry began, reliability has been primarily the responsibility of the customer's local utility. Depending on state law, utilities may be accountable to state utility commissions or other local regulators for reliable service. Typically, the local utility keeps statistics on distribution system interruptions in various neighborhoods, inspects the transmission system rights-of-way for unsafe tree growth near power lines, and sets requirements for "reserve" generation capability to cover unexpected demand growth and unplanned outages of power plants. Many state and local regulators exercise the authority of eminent domain and have siting authority for new generation, transmission, and distribution facilities.

In 1965, President Johnson directed FERC's predecessor, the Federal Power Commission (FPC), to investigate and report on the Northeast power failure. In its report, the FPC stated:

When the Federal Power Act was passed in 1935, no specific provision was made for jurisdiction over reliability of service for bulk power supply from interstate grids, the focus of the Act being rather on accounting and rate regulation. Presumably the reason was that service reliability was regarded as a problem for the states. Insofar as service by distribution systems is concerned this is still valid, but the enormous development of interstate power networks in the last thirty years requires a reevaluation of the governmental responsibility for continuity of the service supplied by them, since it is impossible for a single state effectively to regulate the service from an interstate pool or grid.

Northeast Power Failure, A Report to the President by the Federal Power Commission, p. 45 (Dec. 6, 1965).

In response to the 1965 power failure, the industry formed NERC. NERC is a voluntary membership organization that sets rules primarily for transmission security in the lower 48 states, almost all of southern Canada, and the northern part of the Baja peninsula in Mexico. More detailed rules are prescribed by ten regional reliability councils, which are affiliated with NERC. However, neither NERC nor the ten regional reliability councils have the ability to enforce these rules. And these rules are administered on a day-to-day basis at over 130 utility control areas.

IV. Next steps

Regardless of the actual cause of this blackout, the event, like earlier blackouts, has demonstrated that our electrical system operates regionally, without regard to political borders. Electrical problems that start in one state (or country) can profoundly affect people elsewhere. Preventing region-wide disruptions of electrical service requires regional coordination and planning, as to both the system's day-to-day operation and its longer-term infrastructure needs.

Currently, the Congress has before it, in conference, energy legislation which could address a number of issues that have arisen in the debate in the last few weeks over reliability in our wholesale power markets.

First, both the House and Senate bills going to conference provide for mandatory reliability rules established and enforced by a reliability organization subject to Commission oversight. Many observers, including NERC and most of the industry itself,

have concluded that a system of mandatory reliability rules is needed to maintain the security of our Nation's transmission system. I agree.

That leads to the question of what entity will be in charge, on a day-to-day basis, of administering the mandatory reliability rules that are developed by the independent reliability authority. In Order No. 2000, the Commission identified the benefits of large, independent regional entities, or RTOs, in operating the grid. Such entities would improve reliability because they have a broader perspective on electrical operations than individual utilities. Further, unlike utilities that own both generation and transmission, RTOs are independent of market participants and, therefore, lack a financial incentive to use the transmission grid to benefit their own wholesale sales.

In the six years since the Commission ordered open access transmission in Order No. 888, the electricity industry has made some progress toward the establishment of RTOs, entities that combine roles relating to reliability, infrastructure planning, commercial open access and maintenance of long-term supply/demand. H.R. 6 endorses this effort in a "Sense of the Congress" provision. Congress can direct this effort to be completed.

While coordinated regional planning and dispatch are sensible steps to take, we still need to attract capital to transmission investment. I understand that there is significant interest in investing in this industry already; however, to the extent the Commission needs to adopt rate incentives for transmission or other investment to alleviate congestion on the grid, including new transmission technologies, we should do so. While the Commission has recently taken steps in this direction, action by Congress

on this issue, and in repealing the Public Utility Holding Company Act, can provide greater certainty to investors and thus encourage quicker, appropriate investments in grid improvements. The provisions in H.R. 6 would provide legal certainty to the Commission's recent efforts.

In addition to ratemaking incentives from the Commission, Congress can also provide economic incentives for transmission development. Changing the accelerated depreciation from 20 years to 15 years for electric transmission assets, as in H.R. 6, is an appropriate way to provide such incentives. Similarly, Congress can provide tax neutrality for utilities wishing to transfer transmission assets to RTOs.

To the extent that lack of assured cost recovery is the impediment to grid improvements, regional tariffs administered by RTOs are an appropriate and well-understood vehicle to recover these costs. The Commission has accepted different regional approaches to pricing for transmission upgrades, but the important step is to have a well-defined pricing policy in place.

Getting infrastructure planned and paid for are two of the three key steps for transmission expansion. The third step is permitting. States have an exclusive role in granting eminent domain and right-of-way to utilities on non-federal lands. Under current law, a transmission expansion that crosses state lines generally must be approved by each state through which it passes. Regardless of the rate incentives for investment in new interstate transmission, I suspect that little progress will be made until there is a rational and timely method for builders of necessary transmission lines to receive siting approvals. Providing FERC (or another appropriate entity) with backstop transmission

siting authority for certain backbone transmission lines, in the event a state or local entity does not have authority to act or does not act in a timely manner, may address this important concern. H.R. 6 contains such a provision.

V. Conclusion

I look forward to visiting further with the Committee as the US-Canada Task Force continues to get to the bottom of what happened before, during and after the Blackout on August 14, 2003. Thank you.