

August 17, 2003

THE BLACKOUT

Paul L. Joskow

The U.S. has neither a third world transmission network nor (anymore) the most reliable transmission network on earth. What we do have is a transmission grid whose organization, management, regulation, and physical infrastructure are poorly matched to providing the platform necessary to support the efficient development of the regional competitive electricity markets that have been evolving over the last several years. The energy bills in Congress, especially the bill passed by the House, do contain some constructive provisions that should help to improve the grid in a number of dimensions. However, reflecting an unfortunate Republican political schizophrenia about sound electricity restructuring initiatives that happen to conflict with a states' rights agenda, many Republicans have supported provisions in the pending energy bills that would hinder the development of well-functioning competitive wholesale power markets and further undermine the development of a better transmission network. None of the Congressional bills reflects a comprehensive national commitment to competitive power markets or to effective comprehensive reforms to create the transmission infrastructure necessary to support the development of electricity markets that will deliver more economical and reliable electricity to the nation's consumers.

The wrangling between pro and anti competition forces, jurisdictional disputes between federal and state policymakers, and plenty of ignorance have led our electric power system to become stuck somewhere between the old system of regulated monopoly and a new system that relies more on competitive power markets. This is a very bad place to get stuck. If we remain stuck here, there will be much more trouble with electricity down the road.

If policymakers truly want the initiatives promoting competitive wholesale and retail power markets to succeed there are several policies affecting the transmission network in particular that should be pursued.

- Large regional power markets and the supporting transmission structure required to make these markets work cannot evolve properly with the current patchwork of federal and state jurisdiction over transmission facilities. If the finger pointing about who was responsible for the blackout has made anything clear so far it is that there is far too large an alphabet soup of transmission utilities, reliability councils, system operators, state and federal regulators with overlapping responsibilities to effectively manage the operation and maintenance of and investment in a meshed transmission grid that covers all of the states (except Texas) East of the Rocky Mountains plus Canada. The federal government needs to be given primary regulatory and policy jurisdiction over the high voltage transmission facilities owned by private, public, and cooperative utilities. Just as the Federal Energy Regulatory Commission (FERC) has jurisdiction over interstate natural gas pipelines it should have similar jurisdiction over the high

voltage electric transmission network. This jurisdiction would cover the terms and conditions of access to the transmission network, the prices charged for transmission service, congestion management and transmission planning and investment, including siting of new transmission facilities.

- All transmission owners --- private, public, and cooperative --- must be required to join multi-state independent Regional Transmission Organizations (RTO) with geographic boundaries that reflect natural regional power market areas. FERC should then devolve to these RTOs the implementation of as many of its policies regarding transmission operations, planning, investment, and market monitoring as possible. The Bush administration should get behind its FERC appointees and support mandatory RTO formation and membership by all transmission-owning utilities.
- One area where FERC's otherwise constructive reform policies has been deficient is in the area of transmission network regulation. FERC's regulatory policies regarding transmission investment in particular have been poorly designed and have contributed to underinvestment in the network. Over the last several years transmission investment has declined while network congestion has increased significantly. High voltage transmission networks are natural monopolies and need to be organized and regulated as such. FERC needs to develop and apply performance based regulatory mechanisms (PBR) to facilitate needed investment to expand the capacity of the transmission network, as well as to promote better maintenance practices and enhanced reliability of existing facilities. Investments in modern technology and upgrades of existing facilities can expand the effective capacity and reliability of the grid without significantly expanding its physical footprint. Even third world countries have successfully implemented PBR mechanisms and it's time that FERC adopted modern performance oriented regulatory practices to promote transmission investment and operating efficiencies. While there is room in the system for merchant transmission projects, such as the DC lines that have been proposed to bring power supplies to New York City and Long Island, the bulk of the necessary investments required to create a robust and reliable transmission network will be made by regulated transmission owners. FERC's regulatory policies must reflect these realities.
- The federal government needs to provide incentives and remove tax impediments to the divestiture of transmission facilities owned by utilities that are also competing in wholesale power markets as generators and/or power marketers and to encourage horizontal integration to create larger regional independent transmission companies subject to PBR regulation. All countries that have implemented successful electric market liberalization programs have separated regulated transmission and distribution delivery functions from competitive generation and marketing functions and consolidated ownership of transmission assets to create seamless regional transmission companies. They have done so to assure that the delivery platform upon which competitive power markets depend treats all competitors fairly, is managed by companies whose primary business is

providing efficient and reliable transmission and distribution service, and has a footprint that matches ownership and management of the network with the geographic expanse of the wholesale power markets it supports. Independent transmission networks are also important to eliminate conflicts of interest between reliable operation of the transmission network and the use of the network to make unregulated sales of power. We do not want transmission owners and operators to be in a position where they have the incentive and ability to sacrifice the reliability of the network so that they can use their unregulated generating plants more intensively, ignoring the risks being imposed on others who rely on the network.

- Network reliability rules should be made mandatory, as proposed in the energy policy bills now pending in Congress. However, mandatory reliability rules alone are not enough. These rules must be fully integrated by FERC into a performance based regulatory system that has meaningful economic consequences for grid operators who fail to adhere to the rules, as well as rewards for operators who achieve superior performance. FERC needs to get off the dime and modernize its regulatory mechanisms to include reliability and network performance rules and benchmarks.
- The provisions in the Republican-supported Senate energy bill that would limit FERC's authority to reform wholesale power markets and transmission institutions are poorly conceived, anticompetitive, and will further undermine the smooth transition to well-functioning competitive electricity markets. The Bush administration should get behind the policies initiated by its FERC appointees and oppose the legislative proposals that would tie FERC's hands.

The policy paralysis that plagues the electric power sector has placed the country on a path that is likely to yield the worst features of both poorly regulated monopoly and dysfunctional competitive markets: higher prices, more price volatility, and deteriorating reliability. We must either move forward to bring the restructuring, regulatory and competition reform process to a successful conclusion or return to the old system of regulated monopoly. We can't stay stuck in the middle without creating much more serious long-term problems for electricity consumers and the economy. I say move forward to bring the transition to a successful conclusion. We know the way. What is lacking is the political will to make it happen.