

Electric Choice 18: What data or studies exist regarding the effect of a strategy of divestiture or structural separation of generation assets when moving to a restructured retail market?

Electric Choice 19: What data or studies exist regarding the costs or benefits of having an integrated electrical system versus a system that separates some or all of these roles among different entities?

Executive Summary

1. The electric industry in the U.S. operated as a vertically integrated system for over a century. Beginning in the late 1990s, many deregulated states required or encouraged the incumbent utility to divest or separate their generation assets and the regulated transmission and distribution assets typically remained with the utility to deliver power to all customers.
2. Michigan's hybrid structure is truly unique. For most of the state, generation and distribution assets are owned by utilities and fully regulated by the MPSC, transmission assets are owned by stand-alone companies, and a limited portion of customers (10% of load) are able to obtain generation from alternative energy suppliers (AESs).
3. A 2010 MPSC study found that further separation of generation in Michigan was neither desirable nor necessary. Additional studies have found that the provision of electricity through vertically integrated companies provides substantial savings to customers. These long-term savings from vertical integration should not be discarded lightly for temporary lower market prices.
4. Generation became unregulated in the states that divested utility generation. This made it difficult to reverse course following problems with price spikes and reliability. Michigan took a measured approach that avoided many of these problems.

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- 1. The electric industry in the U.S. operated as vertically integrated system for over a century. Beginning in the late 1990s, many deregulated states required or encouraged the incumbent utility to divest or separate their generation assets.**

The electric industry in the U.S. operated as a vertically integrated regulated system for over a century with electric utilities responsible for power generation, transmission, and distribution to end users. For the most part, the industry remains fully integrated and regulated, despite the move to deregulate or restructure the industry in some states. Many restructured states required or encouraged the incumbent utility to divest or separate their generation assets. The regulated transmission and distribution assets typically remained with the utility to deliver power to all customers.

- 2. Michigan's hybrid structure is truly unique.**

The following structure applies to most of the state:

- Generation and distribution assets are owned by utilities and fully regulated by the MPSC, with a limited portion of customers (10% of load) able to obtain generation from alternative energy suppliers (AESs)
- Transmission assets are owned by stand-alone companies (ITCTransmission and METC in the Lower Peninsula, and American Transmission Company in the Upper Peninsula) and under the operational control of the Midwest Independent Transmission System Operator (MISO)

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This structure applies to investor-owned electric utilities with the exception of Indiana Michigan Power, which remains fully integrated and regulated by the MPSC with operational control of transmission under an independent regional transmission operator, PJM. As with DTE, Consumers Energy, and other investor-owned utilities, Indiana Michigan's territory is open to deregulation with the 10% cap applicable to other areas.

Areas not open to any retail competition in Michigan (electric cooperatives¹ and municipal utilities) remain vertically integrated and regulated, although some do not own their own generation or own generation in partnership with other entities.

- 3. A 2010 MPSC study found that further separation of generation in Michigan was neither desirable nor necessary. Additional studies have found that the provision of electricity through vertically integrated companies provides substantial savings to customers. These long-term savings from vertical integration should not be discarded lightly for temporary lower market prices.**

Importantly, the MPSC conducted an investigation on this topic in 2010 pursuant to a requirement in PA 286 of 2008. The MPSC's *Report on the Advisability of Separating Generation and Distribution within Electric Utilities in Michigan* found that "the implementation of structural separation of generation and distribution would lead to higher customer costs."² The MPSC further stated that it "did not receive any evidence that further separation of generation or distribution is necessary or desirable." Detail on the experience in Michigan is included in the 2010 MPSC report.

In the 2006 CATO Policy Analysis, *Vertical Integration and the Restructuring of the U.S. Electricity Industry*, Robert J. Michaels examines a large body of academic literature on vertical integration and the benefits to customers. Specifically, the studies investigated the relationship between vertical integration of electricity generation, transmission, and distribution and utilities' costs in the U.S. and Japan. Michaels explains:

Markets for the purchase of energy by vertically unintegrated distribution utilities are clearly feasible, but vertical deintegration of existing systems may eliminate some operational and reliability benefits that are important in light of the unique characteristics of electricity.

Michaels contends that policy makers supporting deregulation have often overlooked the research findings and the result has been the passage of electric deregulation laws that "may create production inefficiencies that shrink the net benefits of any move toward market provision of power supplies."³

The review of academic literature by Michaels suggests that the vertically integrated organizational structure of the electric utility industry provides efficiency savings to customers. The loss of such cost

¹ Retail competition is available to members of electric cooperatives with load of 1 megawatt or more.

² See Michigan Public Service Commission, Letter to Governor Granholm and State Legislature with Report on the Advisability of Separating Generation and Distribution within Electric Utilities in Michigan, October 6, 2010.

³ Robert J. Michaels, *Vertical Integration and the Restructuring of the U.S. Electricity Industry*, CATO Policy Analysis, July 13, 2006. Cato Institute, Washington, D.C. Available at: www.cato.org/publications/policy-analysis/vertical-integration-restructuring-us-electricity-industry.

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efficiencies over the long term must be weighed when examining any policy change that would deregulate and disassemble this structure in exchange for immediate and temporary discounts when markets are experiencing a period of low prices.

The above-referenced studies and other data and studies on this topic are summarized below. Note that some of these materials are somewhat dated and focus on theoretical costs and benefits.

- Michigan Public Service Commission, *Report on the Advisability of Separating Generation and Distribution within Electric Utilities in Michigan*, October 6, 2010. Available at: http://www.michigan.gov/documents/mpsc/MPSC_Report_on_Advisability_of_Separating_Generation_and_Distribution_100610_334647_7.pdf. See also filings under MPSC Case No. U-16196.
 - Robert J. Michaels, *Vertical Integration and the Restructuring of the U.S. Electricity Industry*, CATO Policy Analysis, July 13, 2006. Cato Institute, Washington, D.C. Available at: www.cato.org/publications/policy-analysis/vertical-integration-restructuring-us-electricity-industry.
 - United States of America Electric Energy Market Competition Task Force and the Federal Energy Regulatory Commission (June 5, 2006), Docket No. AD05-17-000, Report to Congress on Competition in the Wholesale and Retail Markets for Electric Energy (see Chapter 1, see also p. 93). Available at: <http://www.ferc.gov/legal/fed-sta/ene-pol-act/epact-final-rpt.pdf>.
 - Leonard S. Hyman, *America's Electric Utilities: Past, Present and Future* (Public Utility Reports, Inc., 1998)
 - Timothy Brennan, et al, *A Shock to the System: Restructuring America's Electric Industry*, 1996.
 - Douglas A. Houston, *Deregulating Electric Utilities: A Market Process Approach*, *Cato Journal*, Vol. 1, No. 3 (Winter 1983/84). Available at: <http://www.cato.org/sites/cato.org/files/serials/files/cato-journal/1984/1/cj3n3-12.pdf>.
- 4. Generation became unregulated in the states that divested utility generation. This made it difficult to reverse course following problems with price spikes and reliability. Michigan took a measured approach that avoided many of these problems.**

Generation became unregulated in the states that had utilities divest their generation or transfer them to unregulated utility affiliates or holding companies. This created challenges in terms of long-term reliability and affordability of power, as highlighted in Choice Question 3, and makes it extremely difficult, if not impossible, to reverse course following divestiture of generation (e.g., California). That is, once the generation is divested, it is extremely difficult to re-create a fully regulated, integrated model. Many of the generators end up selling power back to the electric distribution utility or other default provider at unregulated, market-based rates. Unlike these other states, Michigan took a measured approach—with continued state oversight and regulation of generation. This puts us in a relatively good position and avoided the kind of price spikes and other turmoil in other states.