



A COMPARISON: THE OPERATIONAL ROLES OF REGULATED UTILITIES AND INDEPENDENT POWER PRODUCERS IN MISSISSIPPI

As part of Advance Mississippi's educational initiatives, this issue brief compares and contrasts the power generation, delivery service, and business models of regulated utilities and independent power producers. Mississippi's electrical power generation system involves two privately owned, publicly regulated utilities which generate their power or purchase electricity. Some of their electricity can be purchased from unregulated merchant power plants. Publicly-regulated utilities in Mississippi are regulated by the Mississippi Public Service Commission; independent power producers are not state regulated. This analysis studies the background of unregulated power in Mississippi during the era of national deregulation, as well as operational differences, transmission challenges, and the different motivations between regulated power generators and independent producers, who represent both business partners and competitors.

Independent Power Producers and Regulated Utilities

An Independent Power Producer (IPP) is a "corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates facilities for the generation of electricity for use primarily by the public, and that is not an electric utility."¹ The facilities owned by IPPs are often referred to as merchant power plants. A regulated electric utility is an entity that "generates, transmits, or distributes electricity and recovers the cost of its generation, transmission or distribution assets and operations, either directly or indirectly, through cost-based rates set by a separate regulatory authority (e.g., State Public Service Commission)."² Regulated electric utilities are given an exclusive territorial footprint in the state and in exchange, have a legal obligation to serve customers in that region, are strictly regulated, and must have all rates approved by a Public Service Commission, which must afford the utility a fair opportunity to earn a reasonable rate of return on its investment.

¹ Department of Energy: US Energy Information Administration
http://www.eia.doe.gov/glossary/glossary_i.htm#ind_pwr_prod

² Department of Energy: US Energy Information Administration
http://www.eia.doe.gov/glossary/glossary_e.htm#el_utility

In Mississippi, the two rate-regulated electric utilities are Entergy Mississippi, Inc. and Mississippi Power Company.³ IPPs seeking to sell power on the open market in Mississippi include Entegra Power Group, LLC; KGen Power Management, Inc., Calpine, and Magnolia Energy LP.

IPPs may provide valuable service to utilities and to Mississippi retail electric customers. For example, Tennessee Valley Authority (TVA) has a long-term contract to buy power from the GDF Suez's Red Hills Power Plant in Choctaw County, Miss.

Deregulation and Merchant Build Out

During the speculative financial years of the 1990s, investor groups built merchant plants in Mississippi and elsewhere across the country in response to a federal move toward deregulation of wholesale electric markets.

Some industrial customers supported the move toward wholesale and retail electric deregulation, but "have turned against the changes they once championed"⁴ as their industrial rates skyrocketed⁵ in comparison to those states that did not undergo retail deregulation.

Many state leaders were sold on the notion that open retail competition in electric markets would drive costs down for consumers. In practice, however, the opposite has been the case. A 2005 *USA Today* report noted that "Not one of the 16 states – plus the District of Columbia – that has pushed forward with deregulation since the 1990s can call it a success. In fact, consumers in those states fared worse than residents in states that stuck with a policy of regulating their power industries."⁶ Many states that initially pursued deregulation have either reversed the policy or been forced to apply stopgap measures to address the price shocks experienced by ratepayers. In a report titled

³ Mississippi Public Service Commission <http://www.mpus.ms.gov/utility/electric/electric.html>

⁴ New York Times: "Unregulated Electricity Costs More, Studies Say." November 6, 2007.

⁵ A story in the New York Times detailed the cost increases to industrial customers: "The difference in prices charged to industrial companies in market states compared with those in regulated ones nearly tripled from 1999 to" 2007..."the price spread grew from 1.09 cents per kilowatt-hour to 3.09 cents...in 2006 alone industrial customers paid \$7.2 billion more for electricity in market states than if they had paid the average prices in regulated states...Since 1999, prices for industrial customers in deregulated states have risen from 18 percent above the national average to 37 percent above...In regulated states, prices fell from 7 percent below the national average to 12 percent below...That means the difference between market and regulated states nearly doubled, from 25 percentage points to 49 percentage points. A separate study for the Electric Power Supply Association, which represents independent power generators and favors market pricing, reported last week that retail prices for all customers...rose 15 percent more in market states than in regulated states." New York Times: "Unregulated Electricity Costs More, Studies say." November 6, 2007.

⁶ USA Today. "Electric deregulation fails to live up to promises as bills soar." April 21, 2007.

“Shocking electricity prices follow deregulation,” *USA Today* noted that deregulation problems only got worse.

“Deregulation was supposed to do for the power industry what it did in the airline and telecommunications industries: bring consumers lower prices and more competition. Instead, utility bills are rising sharply for residents in many states that unshackled their power markets as rate caps, the final remnants of regulation, expire. Now, several deregulated states, fearing a public backlash, are turning back the clock and reinstating some form of electricity regulation... While average prices rose 21% in regulated states from 2002 to 2006, they leapt 36% in deregulated states...Some economists say electricity isn't suited to competition because it's needed 24 hours a day and can't be stored, giving sellers too much leverage.”⁷

Montana, like Mississippi, had very low electricity rates, but after approving deregulation, its rates skyrocketed with some of the highest costs in the region. Montana “is learning the hard way it isn't easy to rebuild the broken pieces of a stable, publicly regulated utility once it's gone.”⁸ Between 1996 and 2000 the Mississippi Public Service Commission did consider deregulation, and according to the US Department of Energy:

“After several years of hearings and investigation into the benefits of competition, a decision was made to suspend the 1996 docket opened by the PSC to investigate electric power industry restructuring. Prices for electricity in Mississippi were below the national average at the time, and studies conducted by the PSC indicated that prices for residential and small consumers could rise in a competitive environment.”⁹

Today, Mississippi electricity prices are still below the national average. Although electric deregulation never came to Mississippi, merchant plants continued to be built on speculation, and between 1997 and 2000 plans to build sixteen merchant plants were announced.¹⁰ In 2008, Reuters reported that in the past decade, around 8,000 Megawatts of natural gas capacity was built in Mississippi.¹¹ One thousand Megawatts is enough electricity to power up to one million average U.S. homes. The graph on the following page illustrates the increase in Mississippi's electric power capacity from 1990-2008, separated by electric utilities and IPPs.

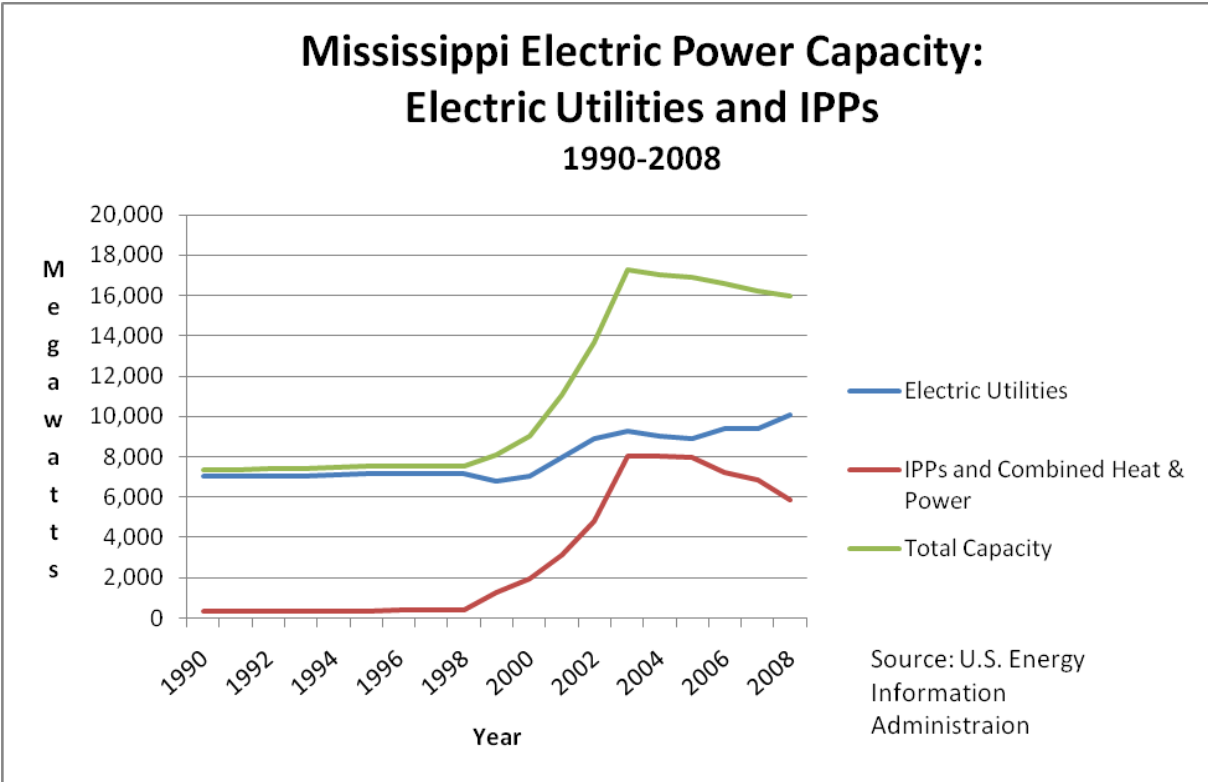
⁷ USA Today, “Shocking electricity prices follow deregulation.” August 10, 2007.

⁸ Associated Press, “Deregulation Has Stung Montanans: The state went from having some of the lowest electricity rates to among the highest in the region. Efforts to undo the effects face hurdles.” Los Angeles Times: March 7, 2006.

⁹ Department of Energy: U.S. Energy Information Administration:
<http://www.eia.doe.gov/cneaf/electricity/page/restructuring/mississippi.html>

¹⁰ Mississippi Business Journal. “New Power Plants: Too much of a good thing?” March 6, 2000.

¹¹ Reuters: “Mississippi utilities see slow growth for power.” June 24, 2008.
<http://www.reuters.com/article/idUSN2431603820080624>



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Different Operations

Unlike regulated utilities, the customers of IPPs are not households or businesses, but utilities with service areas that deliver the electricity to the end user. For example, Entergy Mississippi currently purchases significant amounts of power from IPPs, and in the First Quarter of 2008, Entegra delivered 555,133 MWH of electricity into the Entergy system. The Entergy system solicits proposals for daily, weekly, monthly, limited-term and long-term purchases from IPPs and conducts workshops and technical conferences to encourage IPPs to help meet customer needs.

When it is possible to generate electricity at costs below what IPPs can offer, utilities produce electricity with the facilities that they own. The higher the price demanded by the IPPs, the less power is purchased from merchant plants.

IPPs often oppose the construction of new “base load” power generation facilities by utilities due to potential loss of sales and profit. For instance, Magnolia Energy and Entegra Power filed complaints with the Mississippi Public Service Commission against

¹² Department of Energy: U.S. Energy Information Administration:
http://www.eia.doe.gov/cneaf/electricity/st_profiles/mississippi.pdf

Mississippi Power Company's proposed Kemper County IGCC project (clean coal technology).¹³ In order to profit IPPs need to sell their power to Mississippi Power Company, so the less power Mississippi Power Company produces, the more they will need to purchase from IPPs.

IPPs do play a useful role in supplying electricity during periods of high demand, and very often IPPs are able to help utilities meet these needs, in a quick, on-demand fashion.

By law, Mississippi's regulated electric utilities are obligated to provide electricity at the lowest reasonable cost to their customers. To maintain affordable rates, Mississippi utilities rely on a foundation of base load power production. As a rule, regulated electric utilities work to achieve the lowest reasonable cost for their customers where as IPPs work to achieve the highest possible price for their product.

Due to periods of low-demand and relatively low-cost power, some IPPs do not operate during the winter months. Following Hurricane Katrina, several IPPs were offline and unable to provide power to the grid. Meanwhile, Mississippi Power Company restored power to everyone who could receive it in just 12 days.¹⁴

Transmission Challenges

IPP owners look to sell their power to any market – local, regional or national. To do so, IPPs rely on the existing transmission infrastructure to transport and sell their electricity, and generally seek the highest possible price, which may or may not be the local or regional market. As Mississippi's electricity prices are below the national average, there is an incentive for IPPs to sell their power out of state. In 2005, the *Mississippi Business Journal* reported that,

“When a power plant is built, it has to hook up to an electrical grid to move power to customers. A new plant cannot produce a huge amount of electricity to add to the grid without expensive infrastructure upgrades to handle the load. The issue becomes: Who pays for the work to the grid? Most grid-owning utilities like Entergy or Mississippi Power believe the merchant plant producers should pay for the infrastructure to move (the IPPs) the electricity to the grid.”¹⁵

However, when building their plants, some IPPs did not invest in the necessary transmission infrastructure to transmit their power across the grid, and instead would have utilities' customers pay to upgrade the transmission infrastructure.

¹³ Associated Press. “Commission denies challenges of power plant.” June 9, 2009. <http://meridianstar.com/archive/x681161365>

¹⁴ USA Today, “The little company that could.” October 9, 2005.

¹⁵ Mississippi Business Journal. “Who pays? Power producers watching Energy Bill in Congress.” June 13, 2005.

IPPs are free to sell their electricity to the highest bidder. If utilities outside of Mississippi are willing to pay a higher price for the electricity the IPPs generate, then the IPPs will pay a fee for the utilization of the transmission lines and distribute their power to the highest out-of-state bidder, despite the investment by Mississippi electric utility customers to transport it. MPSC Commissioner Leonard Bentz stated in a recent interview,

“[...] I’m not sold on the independent power producers because what happens is we lose control of that market, we lose control of that entity at the Public Service Commission. I would much rather have a utility build their own self-fired generation where the Public Service Commission, who is responsible to the ratepayers, will be able to take into account all the issues and not a private entity that’s making decisions on top of a building on Wall Street.”¹⁶

For example, Magnolia markets some of its power to Memphis.

“Magnolia is a wholly-owned subsidiary of Kelson Holdings. Magnolia is an independent power producer serving wholesale markets throughout the southeast and midwest. The Facility is directly interconnected to the 500 kV TVA transmission system at the 500 kV Benton County substation, from which Magnolia’s power generally flows north towards the Memphis area and south into the Mississippi grid.”¹⁷

Motivations: Service and Profits

IPPs sell the energy they generate to markets where they will profit most. They primarily sell power in short-term markets in order to retain the flexibility necessary to participate in the wholesale electricity market.¹⁸

Regulated utilities have a legal duty to provide customers with reliable service at the lowest reasonable cost – an obligation that is ensured through the regulatory powers of the Mississippi Public Service Commission, providing a system of checks and balances on behalf of electric utility customers statewide. Alternatively, IPPs have obligations to their shareholders only; merchants are motivated to maximize income. Profit motive in principle fuels a capitalist economy, but reflects a different business model in the case of electric power generation in regulated utility markets such as Mississippi. Entegra

¹⁶ Mississippi Super Talk radio interview, *The Gallo Show*, April 30, 2010.

¹⁷ SERC Reliability Corporation: Compliance Audit Report (Public Version) of Magnolia Energy, LP (MELP) August 4, 2009. http://www.nerc.com/files/2009_public_SERC_MELP.pdf

¹⁸ KGen Power: <http://www.kgenpower.com/fw/main/Strategy-9.html>

explains that its "mission is to provide attractive returns to its shareholders"¹⁹ who are "a consortium of major banks and private equity funds."²⁰

Conclusion

Mississippi's regulated utilities currently utilize power from IPPs in their system plans. However, if pricing permitted the full combination of IPP generation into the utility structure, the state's growing demand would still necessitate the need for additional generation plants for base load power.

While IPPs can help meet certain peak electricity demand, their use as a short- or long-term solution to power supply challenges is untenable. To ensure regulated utilities can continue to deliver reliable power to Mississippians, long-term planning and the development of new base load power plant capacity dedicated to the Mississippi power grid only is critical.

Advance Mississippi's mission is to advocate for sensible energy policy that will fuel economic opportunity in Mississippi, and educate policy makers, business and community leaders, and the general public about superior energy policies that will foster economic growth. Two Advance Mississippi members are mentioned in this issue brief: Entergy Mississippi, Inc. and the Tennessee Valley Authority. For additional information about Advance Mississippi, visit: www.advancemississippi.com.

¹⁹ Entegra Power: <http://www.entegrapower.com/MissionValues.htm>

²⁰ Entegra Power: <http://www.entegrapower.com/ataglance.htm>