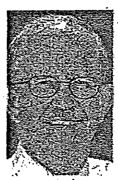
Affordable energy: Coal vs. natural gas

Kemper is too costly

Five years after it was first proposed, Mississippi Power's Kemper County Coal Gasification Plant continues to produce more controversy than kilowatts. What makes this plant worth close inspection is the $2.4 billion price tag hanging over the heads of southeast Mississippi ratepayers.

While MP contemplates this expensive new power plant based on low grade coal, the power industry as a whole is migrating in the opposite direction — from coal to cleaner and now cheaper natural gas. The most troubling aspect of the Kemper plant is the internal documents used by MP to advocate approval by the Public Service Commission (PSC) and MP's desire and the PSC's willingness to keep supporting documents confidential.



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Guest Columnist

The context for this story begins in 1879, a year that found America on the cusp of transformative change. The transformer-in -chief was Thomas Edison, and the transformation he ignited was the electrification of America. Edison was the Steve Jobs of his era and, like Jobs, he was part visionary, part systems thinker and part promoter.

On December 31, 1879, Edison introduced his incandescent light bulb, and he used the occasion to make the rather outlandish but prescient claim, "We will make electricity so cheap that only the rich will burn candles."

In a world focused on scarcity, Edison was focused instead on a coming abundance — electricity — and the economic discontinuity it would bring. Edison proved right, and 132 years later, cheap electricity continues to be a key driver of economic growth and improving living standards. Electricity today is taken for granted, but power companies face a new discontinuity that is reordering their highly regulated world.

An economic discontinuity occurs when a new technology increases productivity by a factor of 10. Discontinuities are disruptive but good — think of them as progress at warp speed. But how one is positioned is crucial. Being on the right side of an economic discontinuity can mean greater prosperity — being on the wrong side can mean economic disadvantage.

File photo/Gannett

Mississippi Power's proposed Kemper County Coal Gasification Plant comes with a $2.4 billion price tag. And it comes at a time when fracking technologies are being used to extract natural gas from shale, thus shaking up the power industry. Versus coal, natural gas has the added benefits of lower emissions and lower transportation and handling costs.

The new discontinuity shaking up the power industry is fracking technologies used to extract natural gas from shale. Thanks to the new abundance of "shale gas," a million Btu (British thermal unit) of natural gas now goes for $2.29 while a million Btu (8 gallons) of gasoline costs $23.60. Versus coal, natural gas has the added benefits of lower emissions and lower transportation and handling costs. It is no surprise power companies are shifting more and more generation to natural gas.

But officials at MP point to the historical volatility of natural gas as a reason to invest $2.4 billion to gasify low grade coal versus just $580 million for the same megawatt capacity that burns natural gas. Two very reliable sources suggest this is shortsighted.

In their 2012 Energy Outlook, the U.S. Energy Information Administration projects that natural gas prices will stay below $5 through 2023. Daniel Yergin, energy expert and Pulitzer Prize winning author, states in his 2011 book, *The Quest — Energy, Security and the Remaking of the Modern World*, "the arrival of unconventional gas portends low prices and abundant supplies for many decades or even a century or more."

So why has MP requested confidential status for their documents submitted to the PSC? Probably because ratepayers would be outraged at the higher than necessary electric bills they will face over the next 30 years.

The lignite coal gasification plant in Kemper County isn't competitive with today's natural-gas-

See PLANT, 4C

Plant: Extra $60 a month on electric bill for next 30 years

From 1C

fired facilities, and it wasn't when first proposed back in 2009. One MP document obtained through a public records request is telling. It shows the Kemper Coal plant achieving breakeven status with a natural gas plant with gas priced at $12 in 2014 and trending to $18 by the year 2035.

In other words, if gas averages less than $12, MP customers will not breakeven, much less realize any of the cost savings promised by the proponents of the Kemper plant. Such a projection is stunning considering natural gas was trading at only $4.76 in January, 2009, the date of the projection. What is more, natural gas has only briefly traded above $12 twice in the past 20 years — for a month in 2008 and for the three months in 2005 in the aftermath of hurricanes Katrina and Rita.

As forecasts go, this is like missing the broadside of the barn from inside the barn with a full magazine of ammo.

In March, 2010, MP's CEO Anthony Topazi, (now COO of MP parent, Southern Company) reconfirmed the narrative of $12 and higher natural gas for 20 years in an interview with the Mississippi Business Journal (MBJ).

In the interview Topazi states, "By 2020, rates are going up about a third. That's approximately how much rates are going up with the gas alternative. With the Kemper alternative, they're going to go up a few percentage points higher than that, but still, in the 30s. ... Rates are going up about a third regardless of which option is chosen."

At the time of MBJ's Topazi interview, the USEIA was projecting flat to lower costs for gas-fired kilowatts through 2020 and 2035. This year USEIA's 2012 Outlook for cheap natural-gas-fired electricity is even brighter, "Following the recent rapid decline of natural gas prices, real average delivered electricity prices in the AEO2012 reference case fall from 9.8 cents per kilowatt-hour in 2010 to as low as 9.2 cents per kilowatt-hour in 2019, as natural gas prices remain relatively low."

MPs' far from the mainstream gas price projection and persistent pursuit of the high cost plant option begs the question — why?

A logical answer is found in how state law treats electric utilities. MP is guaranteed a rate of return on their PSC approved capital investment, with fuel costs treated as a pass through.

As a result of this setup, MP's earnings on a $2.4 billion plant will be four times as great as those on a $580 million plant even if the electricity produced is the same.

So what might be done regarding MP's egregious projections of $12+ natural gas prices?

The persons responsible should be relieved of any forecasting duties and perhaps reassigned to writing personal notes of apology to the 186,000 ratepayers in southeast Mississippi who face the prospect of paying an extra $60 a month on their electric bill for the next 30 years.

Businesses in southeast Mississippi be warned, those higher rates work out to $133 million per year that won't be available to spend on other local goods and services. For fans of good government, that $133 million is the equivalent of two-and-a-half "beef plants" every year for the next 30 years.

Building a $2.4 billion low grade coal plant in 2012 makes no more sense than building a state of the art candle factory in 1879.

The ratepayers in southeast Mississippi aren't rich enough to pay for either one.

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