

William Presson, Acting Permit Section Supervisor,
Air Quality Division,
DEQ,
P.O. Box 30260
Lansing, Michigan 48909-7760

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Email: PRESSON@michigan.gov

Dear Mr. Presson,

Thank you for the opportunity share our views on the department's proposed policy to require applicants to include a refinery process called integrated gasification combined cycle (IGCC) in their demonstration for Best Available Control Technology (BACT) for coal fired power plants. The MMA has several concerns about this proposed policy change, which range from regulatory promulgation process to fundamental concerns about real impacts on the cost of electricity and reliability of Michigan's electric system. The following will articulate our specific concerns, and make the case that this proposed policy change will negatively impact the states ability to compete for industrial investment in the global market place, while providing negligible environmental benefits in exchange for increased costs.

First, let me describe the MMA membership and their importance to Michigan's economy. Our membership includes, traditional utilities, municipal generators and cooperative generators and their industrial electric customers. MMA represents about 3,000 members that operate in the full spectrum of manufacturing industries, and which account for 90% of Michigan's industrial workforce. Manufacturing provides about 600,000 jobs, with wages that are about 25% higher on average than any other sector and provide among the best benefits in the economy. Manufacturing has the highest economic multiplier effect compared to other sectors, with manufacturing creating an average of 3 indirect jobs for every 1 manufacturing job created.

Michigan is a large manufacturing state, with a manufacturing concentration 7.7 times more concentrated than the national average. Manufacturing, along with allied industries mining and utilities, is the largest single sector of the Michigan economy, creating 21% of the gross state product (GSP), or \$76.3 billion. This contribution is nearly double the contribution of the next largest sector, real estate, with \$42.9 billion in GSP.

A word about global competition - it is important to recognize that the manufacturing sector competes in the global economy in ways that other business sectors do not. We do not compete with companies down the street; we compete on the basis of price with the lowest cost location anywhere in the world. If we don't win on price, we lose market share. The ultimate consequence of increased costs for Michigan can be redirected capitol investment and lost jobs.

Michigan now has the highest unemployment rate in the nation at 7.2%. This state has lost 426,000 total non-farm jobs and 289,600 manufacturing jobs since 2000, according to the U.S. Department of Labor, Bureau of Labor Statistics. We have lost 67,100 jobs just since July of 2006.

The U.S. Department of Energy reported recently, that electric rates for industrial customers in Michigan rank the highest among the “East North Central” region, which includes Illinois, Indiana, Michigan, Ohio, and Wisconsin. Electricity is a critical cost component in the total product cost in manufacturing. The impact of electric cost is often multiplied as energy costs tend to stack up throughout the supply chain. With industry accounting for about one-third of total electric demand in Michigan, manufacturing is vulnerable to the negative impact of electric cost increases. While regional comparisons are interesting, we are focused on costs in the global economy.

Specific Concerns

Promulgation Process - As a matter of a promulgation process, we are concerned that a policy decision that could have such significant impact on Michigan’s economy would be left to the discretion of a department director. We believe a policy decision of this magnitude deserves, even demands, legislative involvement. However, this policy decision is not even being considered in the context of the Administrative Procedures Act, which requires agencies to take several steps to ensure legislative involvement and allow open and transparent decision making, together with the right to appeal the ultimate decision. To our knowledge, neither the legislature nor the Joint Committee on Administrative Rules has been properly notified of this proposed policy change. In the absence of legislative review, the Department of Environmental Quality is making decisions that impact more than environmental policy - they dictate energy policy and economic policy for Michigan. We believe this decision deserves broader policy review from elected officials.

Regulatory Interpretation – The proposed policy to require IGCC in the BACT demonstration exceeds authority provided in the federal Clean Air Act (CAA). The CAA restricts the consideration of control measures to preclude requirements that would “redefine the source.” This is a critical precedent for all industry (not just coal fired generation), as it would begin to allow the DEQ to dictate manufacturing technique and even the kinds of products that could be produced by any industry.

In the specific case of electric power generation, breaching this appropriate federal regulatory constraint would logically allow the agency to conclude that nuclear power has a better environmental profile. In the end, the agency would dictate the investment proposals of investor owned utilities and independent power suppliers, and create a significant investment uncertainty for both the utility and its customers. That level of uncertainty creates new economic barriers that are separate from the direct increased cost of forcing the use of different, more expensive and/or less reliable, generation technology. This level of regulatory authority would cause insurmountable uncertainty in the business community and damage Michigan’s business climate.

IGCC is Not Control Technology – IGCC is fundamentally different technology than a super-critical pulverized coal (SCPC) plant. IGCC is a refinery process that produces syngas that would be burned in a combustion turbine power generation unit. This process generates by-products that themselves require add-on controls to protect humans and the environment from otherwise harmful emissions. This process is not designed to be a control technology and ironically, it is not designed solely for power generation. As a result, current reported emissions from existing IGCC facilities in the U.S. are not as low nor is it as effective or efficient in

generating power as processes, such as, SCPC that are designed for the singular purpose of generating power.

IGCC Less Reliable – For the manufacturing community reliability of the grid is essential to remaining competitive in the global economy. Power interruptions in 24/6 operations and even fluctuations in power quality can have significant economic consequences for industrial facilities. The potential consequences range from production interruptions that reduce return on fixed capitol investments; to catastrophic equipment damage. The Public Service Commission's (PSC) 21st Century Electric Energy Plan indicated, "For example, it is estimated that the economic cost of the widespread August 2003 blackout on Michigan was close to \$1 billion; and a single automotive plant can lose approximately half a million dollars within the first 5-10 minutes of a power interruption."

Michigan's demand for power is anticipated to exceed the state's ability to supply power in the year 2015, according to the report. Requiring IGCC (the potential net effect of the IGCC as BACT requirement) presents significant risk to reliability of Michigan's electric system. It is a developing technology. As indicated in a footnote on page 12 of the 21st Century Electric Energy Plan - "In 2006, 4,000 MW of IGCC capacity is in the planning stage in the U.S., but only a handful of small demonstration projects/plants are currently operating in the U.S. Fitch Ratings, "Wholesale Power Market Update," October 25, 2006, p. 8." Of the five small projects that have been operated in the U.S. since 1984, only two of them are currently in operation and these two facilities were substantially subsidized with tax dollars. In addition, the two facilities Tampa Electric Polk Plant (250 MW) and PSI Energy/Global Energy Wabash River (256 MW) are relatively small and neither facility is relied upon for base-load capacity. The reliability factors associated with these two demonstration projects, give us reason to be seriously concerned. Between 2000 and 2003 neither facility achieved power availability more than 82% of the time and varied in ranged from year to year to as low as 61.5% at the Tampa facility in 2003. In contrast, SCPC facilities typically operate in the 90% range for long periods of time. IGCC's level of reliability is a dangerous bet for Michigan's manufacturing sector, and since manufacturing is the largest sector of Michigan's economy, it is dangerous for Michigan's economic future.

IGCC More Expensive – MMA as an association has not specifically studied the likely relative equipment costs of IGCC compared to proven generation technologies of equal generation capacity, however, we understand that some estimates, even assuming the IGCC design can be scaled up to an appropriately large capacity to meet base-load needs, suggest that costs would be 20% to 30% more. However, equipment costs alone do not speak to the cost of power. IGCC's relative lack of reliability brings an inherent cost. In those times that the IGCC gasification process is not working, it must either "go black" or generate electricity using natural gas. Natural gas has tremendous price fluctuations and can be exceedingly expensive for generating electricity. We do not support the use of natural gas to fuel base-load generation.

In 2004, MMA called on the Michigan Public Service Commission to develop an energy plan for Michigan. Our call was spurred in large part by the alarming increase in the use of natural gas for power generation in Michigan. Many of our industries rely on natural gas in the manufacturing process. With the increased demand for natural gas for power generation, the cost of natural gas rose significantly causing the cost of production in Michigan to rise. As a result, many Michigan-made products became less competitive in the global price based market. We are concerned that a decision by the environmental agency that could ultimately lead to firing Michigan's electric base-load capacity with natural gas will have significant negative effects on Michigan manufacturers' ability to produce products at a globally competitive price.

IGCC Not Better Environmentally – In the face of questionable reliability and higher costs of power, it is presumed that such substantial tradeoffs would yield substantial environmental benefits. Remarkably, IGCC does not yield significant improvements for two major criteria pollutants NO_x and SO₂, compared to SCPC. The variability of operations, speaks to the predictability of its emission reduction capability. In a recent decision by the Environmental Assessment Board, in *In re Prairie State*, the Illinois Environmental Protection Agency had found “that ‘[a] review of the small number of existing IGCC projects indicates that IGCC achieves NO_x emission rates that are similar to those achieved by new power plants with boilers that directly fire coal.’” *Id.* at 46-47, *quoting* Project Summary at 7. The IEPA had also found “that ‘[a]vailable information does not indicate that existing IGCC plants are achieving substantially lower SO₂ emission rates than would be required of the proposed boilers.’” *Id.* at 47, *quoting* Project Summary at 9. It is hard to believe a cost benefit analysis comparing the two different technologies on the basis of control for NO_x and SO₂, would favor IGCC. While, NO_x and SO₂ represent just some of the emissions required to be considered, we remain dubious that on balance IGCC would prevail on the assessment of environmental benefits.

IGCC Equally Litigious – The agency argues that by requiring a review of IGCC in the context of a BACT analysis will reduce the likelihood that a permit will be challenged by external special interest groups. While we appreciate the agency’s effort to protect our members’ legal interests, we do not believe that this requirement will have any beneficial effect on reducing the likelihood of third party lawsuits.

Conclusion

Michigan stands at a critical point in its history, wading in a stream of economic challenges. We are suffering the highest unemployment rate in the nation; we carry the second lowest bond ratings in the nation, and we are teetering on the brink of a government shut down. We must look forward with both optimism and prudence and recognize that decisions we make today, will dictate the economic future of Michigan.

Michigan’s economy is substantially dependent on the success of our manufacturing companies as they represent and will long remain the largest sector of our state’s economy. Beyond a timely resolution of the 2008 budget, we believe that decisions on energy policy will significantly determine Michigan’s economic future. Demand for power is quickly outpacing, the state’s ability to supply power at any price. If policy makers in Michigan select electric generation technology that significantly increases costs and decreases reliability of the electric system, without providing significant environmental benefits, Michigan’s economic future looks dim.

Decisions of this magnitude, with far reaching economic impacts, should not be made through a policy decision made by one agency without legislative involvement. We ask that the agency suspend its pursuit of this policy change, and allow this issue to be reviewed in the kind of open public debate looking at total societal impacts afforded in the legislative process.

We appreciate the opportunity to voice our concerns about this process and this proposed policy. We hope consider our concerns seriously, because Michigan cannot afford to take risks with our economic future.

Respectfully,

Mike Johnston

Director of Regulatory Affairs