



June 9, 2017

Commissioner Brandon Presley
Mississippi Public Service Commission
501 North West Street, Suite 201A
Jackson, MS 39201

Re: Mississippi Public Service Commission Docket 2010-AD-2; *Order Establishing Docket to Investigate the Development and Implementation of Energy Efficiency Programs and Standards*

Dear Mr. Presley,

The Alliance for Industrial Efficiency (the “Alliance”) appreciates the opportunity to submit comments in response to Docket No. 2010-AD-2 on the development and implementation of Mississippi’s energy efficiency programs and standards. The Alliance is a diverse coalition that includes representatives from the business, environmental, labor and contractor communities, including more than two dozen electrical, mechanical, and sheet metal contractors in Mississippi alone. We are committed to enhancing manufacturing competitiveness and reducing emissions through industrial energy efficiency, particularly through the use of clean and efficient power generating systems such as combined heat and power (CHP) and waste heat to power (WHP).

We greatly appreciate the effort of the Public Service Commission (the “Commission”) to seek information from stakeholders on various issues related to Rule 29 and the implementation of energy efficiency programs in Mississippi. Our comments specifically address the Commission’s inquiry about a large customer opt out. **We strongly recommend *against* allowing customers to opt out of the state’s energy efficiency programs.**

Industrial energy efficiency programs provide many benefits, which would not be realized if large customers were allowed to opt out. They:

- Provide significant energy savings at a lower cost than programs for most other sectors;
- Keep energy prices low for all ratepayers;
- Reduce utility costs associated with building new infrastructure to meet higher energy demand;
- Improve regional economic development activity through program implementation and increased disposable income earned through bill savings;



- Can help Mississippi businesses achieve their potential for over \$3.5 billion in cumulative electricity bill savings through 2030.¹

CHP Offers an Economic Opportunity for Mississippi

By generating both heat (thermal energy) and electricity from a single fuel source, CHP dramatically increases overall fuel efficiency – allowing utilities and host companies to effectively “get more with less.” CHP more than doubles the fuel efficiency of a conventional plant, using more than 70 percent of fuel inputs to generate electricity. WHP systems recover waste heat and use it to generate electricity with no additional fuel and no incremental emissions. As a consequence, CHP and WHP can produce electricity while lowering costs for both host companies and all Mississippi ratepayers.

In Mississippi, there is a substantial opportunity to implement CHP. Currently, the state has 23 CHP sites, generating 529 megawatts (MW) of clean and efficient power.² The potential is far greater. The Department of Energy estimates the state has 1,833 MW of remaining CHP and WHP technical potential capacity (identified at 2,629 sites), with 966 MW of remaining onsite technical potential in the industrial sector alone.³

A 2016 report from the Alliance for Industrial Efficiency found that if an economically viable portion of the state’s CHP and WHP was deployed,⁴ Mississippi industrial sector customers would save over \$1.2 billion in cumulative electricity costs from 2016 to 2030.⁵ These savings would help make Mississippi CHP hosts more competitive, allowing them to increase production, compensate their workforce, and better compete in a global marketplace.

Mississippi is particularly well-positioned for CHP growth because of its strong industrial base and significant remaining technical potential. Manufacturing accounts for 14 percent (\$15 billion in 2013) of the total gross state product and employs over 12.6 percent of the workforce.⁶ Mississippi’s industrial sector consumed 34.4 percent of the total energy used statewide in 2013

¹ The Alliance for Industrial Efficiency, Sep. 2016, “State Ranking of Potential Carbon Dioxide Emission Reductions through Industrial Energy Efficiency” (http://alliance4industrialefficiency.org/wp-content/uploads/2016/09/FINAL-AIE-State-Industrial-Efficiency-Ranking-Report_9_15_16.pdf).

² U.S. DOE Combined Heat and Power Installation Database, (<https://doe.icfwebservices.com/chpdb/state/MS>).

³ U.S. Department of Energy, Mar. 2016, “Combined Heat and Power (CHP) Technical Potential in the United States” (<http://energy.gov/sites/prod/files/2016/03/f30/CHP%20Technical%20Potential%20Study%203-18-2016%20Final.pdf>).

⁴ The Alliance analysis assumed Mississippi deployed CHP projects with less than a 10-year payback period.

⁵ The Alliance for Industrial Efficiency, Sep. 2016, “State Ranking of Potential Carbon Dioxide Emission Reductions through Industrial Energy Efficiency” (http://alliance4industrialefficiency.org/wp-content/uploads/2016/09/FINAL-AIE-State-Industrial-Efficiency-Ranking-Report_9_15_16.pdf). Report considers potential for CHP alongside other modest industrial efficiency improvements. Citation here refers to unpublished data reflecting CHP and WHP deployment alone.

⁶ National Association of Manufacturers, Feb. 2015, “Mississippi Manufacturing Facts,” (<http://www.nam.org/Data-and-Reports/State-Manufacturing-Data/2014-State-Manufacturing-Data/Manufacturing-Facts--Mississippi/>).

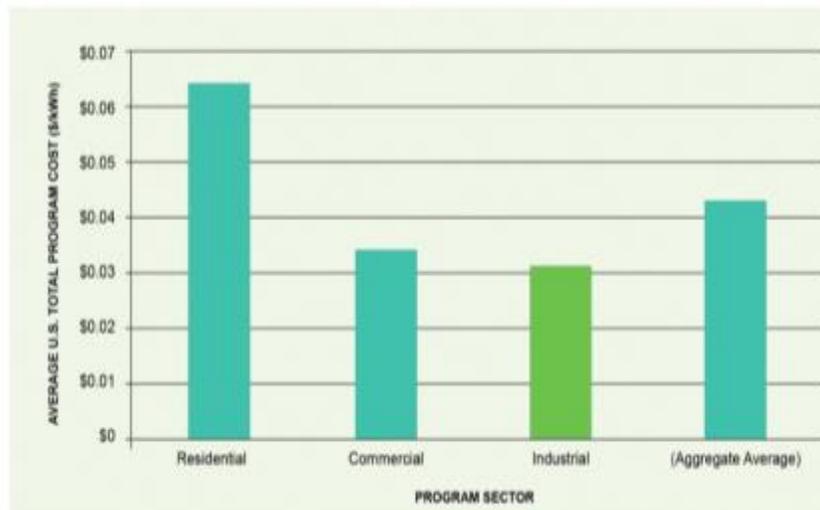


(or nearly 400 trillion British thermal units).⁷ The size of the state’s manufacturing sector and the significant technical potential for CHP indicates that Mississippi has a tremendous opportunity for additional CHP implementation, which can be encouraged through utility energy efficiency programs.

Support Effective Industrial Efficiency Programs to Benefit All Customers

Industrial energy efficiency programs offer tremendous benefits – including energy savings, increased competitiveness, and reliability. Because energy efficiency is the cheapest source of energy, it should be the first choice for electricity planning. One study found that on average, it costs 2.8 cents per kilowatt hour to run efficiency programs in 20 states from 2009 to 2012 – about one-half to one-third the cost of alternative new electricity resource options.⁸ Further, *industrial* energy efficiency is the cheapest source of efficiency (Figure 1) and has the lowest cost of saved energy on a national level when compared with other sectors.⁹ By lowering demand for more expensive methods of producing power, energy efficiency and especially industrial efficiency, reduce costs for all electricity customers, not just those who adopt efficiency projects. Our 2016 analysis shows that Mississippi businesses could save about \$3.5 billion through industrial efficiency investments (including, but not limited to, CHP and WHP).

Figure 1. Cost of saved energy by sector¹⁰



⁷ U.S. Energy Information Administration, “Mississippi: State Profile and Energy Estimates,” December 2015 (<https://www.eia.gov/state/?sid=MS#tabs-2>).

⁸ American Council for an Energy-Efficient Economy. 2014. “The Best Value for America’s Energy Dollar: A National Review of the Cost of Utility Energy Efficiency Programs (aceee.org/research-report/u1402).

⁹ Department of Energy. 2014. “Industrial Energy Efficiency: Designing Effective State Programs for the Industrial Sector.” (www4.eere.energy.gov/seeaction/system/files/documents/industrial_energy_efficiency.pdf).

¹⁰ *Id.*



C&I programs have been a key component of utility portfolios during the Quick Start phase of Mississippi's Rule 29 Conservation and Energy Efficiency Programs. According to 2016 Quick Start program reports, savings from C&I programs accounted for 42 percent of Entergy's overall savings in 2016, but only 38 percent of expenditures.¹¹ In addition, savings from Mississippi Power Company's C&I programs accounted for 49 percent of the total savings reported in 2016.¹² These savings benefit all ratepayers by helping to reduce system costs overall. Energy efficiency investments also help prevent outages by reducing demand on the grid during peak periods.

Well-designed utility programs targeted to industrial facilities are a proven way to increase deployment of industrial energy efficiency and to save money for all electricity customers. These programs make efficiency investments cost-effective for industrial companies and help all Mississippi electricity customers by lowering their bills. Through a program, a utility may offer free energy audits at industrial facilities to identify ways in which the facility can reduce its energy use and save money, as well as custom program incentive offerings. In these ways, a utility efficiency program can offer industrial companies a fresh look at potential savings, technical expertise, and financial assistance to implement projects. In a sense, the utility becomes a partner with the industrial in finding energy reduction opportunities.

These utility program benefits were experienced firsthand by Solvay Specialty Polymers, an Ohio-based manufacturer. Solvay developed a CHP project with DTE Energy Services which used \$1.5 million in rebates from AEP Ohio over a five-year period. The project is estimated to save Solvay \$10-15 million in reduced energy costs over the next 20 years.¹³ As another example, Nissin Brake, an Ohio-based automotive supplier, received rebates from AEP Ohio for investing in energy-efficient air compressor controls, air drying, and lighting. The utility rebates reduced the payback period from three years to less than two, making the investment viable and saving the company over 800 kilowatt-hours per year. Nissin Brake's Manager of Production Support has stated that the company would not have invested in the energy efficiency improvements absent AEP Ohio's support.¹⁴ Utility efficiency programs could offer similar benefits to Mississippi ratepayers.

Although industrials have an incentive to reduce costs (including energy), there are often cost-effective energy-saving opportunities that companies have not yet captured. Large industrials

¹¹ Entergy Mississippi, Inc. (EMI) Energy Efficiency Quick Start Programs Implementation Report 2016. May 1, 2017. Docket 2014-UA-006.

¹² Mississippi Power Company. 2016 Energy Efficiency Annual Report. May 1, 2017. Docket 2014-UN-0010.

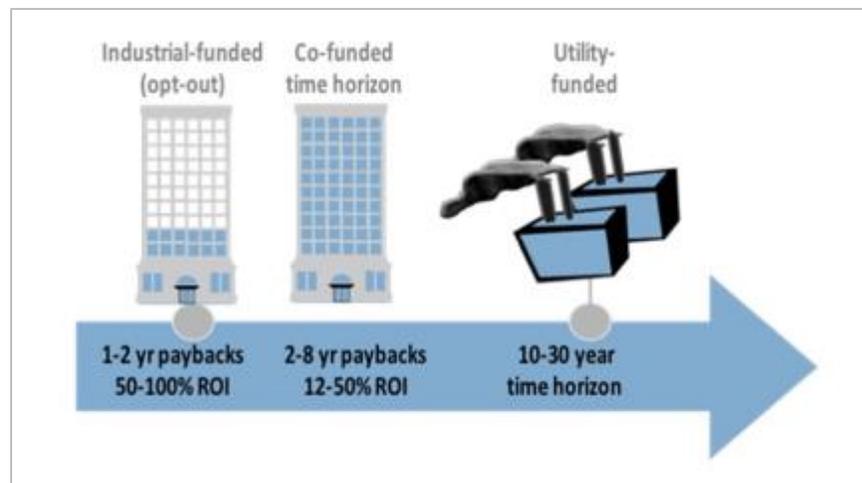
¹³ Alliance for Industrial Efficiency. 2016. "CASE STUDY: Energy Efficiency Is Good For Business: Solvay Specialty Polymers." (http://alliance4industrialefficiency.org/wp-content/uploads/2017/02/Solvay_case_study_FINAL.pdf).

¹⁴ Alliance for Industrial Efficiency. 2016. "Case Study: Energy Efficiency is Good for Business." (www.alliance4industrialefficiency.org/wp-content/uploads/2016/08/Nissin-Brake-Case-Study.pdf).



typically report that their energy efficiency investments must meet a very short (one- to two-year) payback period requirement, which means that many projects that are cost-effective in the long-term will not be completed unless the payback period can be reduced through outside funding. Utility programs make possible investments that an industrial facility cannot otherwise undertake reasonably consider. As Figure 2 illustrates, the combination of capital investment by a company and utility industrial energy efficiency program incentives results in a larger return-on-investment (ROI), making projects feasible that previously were not.

Figure 2. Utility industrial energy efficiency programs reduce the payback period for projects.¹⁵



Some have argued that industrial customers should be allowed to opt out of these programs. We urge the Commission not to allow this, because it would increase electricity costs for all ratepayers by undermining the effectiveness of the efficiency programs. By removing industrial contributions, less funds would be available to pay for energy efficiency investments – and the potential projects and associated savings would be slashed.

If industrial customers opt out of these programs, they would still benefit from reduced demand and rates across the grid, without paying their fair share for energy efficiency investments that benefit the entire state. This would negatively affect the whole portfolio of programs and create inequity among program sectors. All customers are required to contribute to the costs of constructing a new power plant. In the same way, all customers should be required to contribute to the activities that defer such construction. Energy efficiency should be treated in the same way as power generating resources, especially since it outcompetes even the cheapest form of power production.

¹⁵ Schlegel and Associates. "Industrial Arguments for Opt-Outs & Counter Arguments for Increasing Value for Industrials." Unpublished presentation, last modified October 27. Microsoft PowerPoint file.



A recent study by the American Council for an Energy-Efficient Economy (ACEEE) examined the potential results from a proposed opt-out policy in Ohio. The study found that the total increased utility costs from allowing 35 percent of the state’s largest customers to opt out of utility programs in Ohio would exceed \$10.1 billion if the policy were in place from 2015-2024.¹⁶ Further, the study found that by forgoing the opportunity to participate in programs, over \$3.3 billion in bill savings would be lost. Finally, increased health-related costs associated with the opt out would exceed \$1.2 billion in Ohio.¹⁷

Self-Direct

The Alliance strongly recommends that the Commission require full participation in a utility efficiency program by all ratepayers. However, if the Commission determines that traditional utility programs cannot meet the needs of all stakeholders, a self-direct option can be an effective alternative. Self-direct programs allow large energy users to control how some or all of their energy efficiency fees are used, but do not allow them to opt out of fees and programs completely. Well-structured self-direct programs offer large energy users greater flexibility and control, while ensuring measurable, cost-effective energy savings are achieved for all customers in the utility system.

Successful self-direct programs have several important components. First, they should be developed as part of a larger portfolio of energy efficiency program options. They should also allow a wide range of eligible technologies and measures, including CHP and WHP. Finally, to ensure that the program meets the needs of large customers, it is also important that all stakeholders participate in its development. Examples of well-designed self-direct programs include the New Jersey Large Energy Users Program, the Puget Sound Energy (PSE) Large Power User Self-Directed program, New York’s Reforming the Energy Vision (REV) initiative, and Xcel Energy’s self-direct program in Colorado.¹⁸

We further recommend that the Commission convene a workshop or offer another venue that would create an open dialogue with stakeholders to discuss large customer program options, as well as strategies for developing alternative program offerings for large customers.

Thank you for your consideration.

¹⁶ American Council for an Energy-Efficient Economy. June 2017. “Large Customer Opt Out: An Ohio Example.” (<http://aceee.org/research-report/u1706>).

¹⁷ *Id.*

¹⁸ ACEEE. “Self-Direct Programs for Large Energy Users.” (<http://aceee.org/sector/state-policy/toolkit/industrial-self-direct>).



Sincerely,

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