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MPSC Chairman Submits Energy Plan Essential to Growing Michigan's 21st Century Economy

Michigan Public Service Commission (MPSC) Chairman J. Peter Lark today submitted the state's 21st Century Energy Plan to Governor Jennifer M. Granholm. "This Plan will grow our economy here in Michigan, while powering our state into the 21st Century," Lark said.

Lark filed the Plan in response to an executive directive issued by the Governor last April. In Executive Directive 2006-02, the Governor called for Lark to develop a comprehensive plan to provide reliable, clean and affordable power to meet Michigan's future electric energy needs, including a renewable portfolio standard and energy efficiency measures.

"This Plan protects customers well into the 21st century by keeping our lights on, saving us billions of dollars, and protecting our environment," said Lark. "In addition, the Plan helps grow Michigan's economy by fostering technologies that will create jobs critical to the 21st Century economy," he added.

The Plan recommends that Michigan's future energy needs be met through a combination of renewable resources and the cleanest generating technology, with significant energy savings achieved by increased energy efficiency. "A critical element of the Plan is diversification," Lark said. "We cannot afford to put all our eggs in one basket, or blindly trust volatile energy markets to meet Michigan's needs for reliable and affordable power. By acting now to incorporate renewable resources and energy efficiency measures into our supply portfolio, we reduce our exposure to the expensive environmental costs associated with traditional power plants, and also reap the benefits of cleaner air and water."

The Plan recommends that all retail electric energy suppliers be required to obtain at least 10 percent of their energy supplies from renewable resources by 2015. A renewable portfolio standard provides protection from volatile electric energy markets, and provides protection from costs associated with expected federal taxes on greenhouse gas emissions.

Michigan's load growth is expected to grow an average of 1.2 percent per year over the next 20 years. Recognizing that the average age of Michigan's power plants is 48 years, and that no Michigan utilities have undertaken baseload construction in almost 20 years, it is important that a new baseload plant can be built and financed while protecting customers from unnecessary costs. Modeling shows a need for a new baseload power plant no later than 2015, and since build time on a baseload plant is at least six years, the state should take action now.

The plan recommends a new approach to utility-built generation. Using this approach, a utility would file a plan that includes renewable resources, energy efficiency measures, power available from external markets, and existing traditional generation to meet forecasted demand. Against that backdrop, if the utility plan demonstrates a need for a new baseload plant, the MPSC may approve the decision to build the plant by issuing a certificate of need. If a certificate is granted, the utility would be required to competitively bid the construction costs to ensure customers the lowest price.

The Plan also recognizes that because of large potential savings, Michigan must invest in energy efficiency. To ensure that benefits are obtained, the Plan recommends creation of a Michigan Energy Efficiency Program. The program would cost the average residential customer about 50 cents per month and will fund energy efficiency measures and energy efficiency education throughout the state. "The energy efficiency program will save Michigan's citizens $3 billion over the next 20 years - the cost of two new power plants," Lark explained. While there is a cost for the program, Michigan customers will not only save billions of dollars in generation construction costs, but those taking advantage of energy efficiency efforts will lower their energy usage, driving down bills.

Energy efficiency measures run the gamut from making small items such as compact fluorescent light bulbs more readily available and inexpensive, to providing incentives to replace large items such as air conditioners and refrigerators. Lark noted, "It is estimated that by replacing the five most frequently used light fixtures in a home with ENERGY STAR models, customers can save more than $60 per year in energy costs." ENERGY STAR qualified refrigerators use 40 percent less energy than conventional models sold in 2001.

Twenty-four states have already enacted Renewable Portfolio Standard legislation, and 15 states have an Energy Efficiency Plan in place. "Inaction is the most expensive choice for the 21st Century. We cannot meet tomorrow's needs by relying on yesterday's solutions," Lark emphasized. "This is a critical time for Michigan to make an investment in our energy future. If we seize this opportunity, we put ourselves on the path to stable energy prices, we protect the public health and the environment, and we share the corresponding economic benefits associated with investment in advanced technologies."

By pursuing the balanced approach set forth in the Plan, modeling shows the value of total savings to customers over the next 20 years is $4 billion, and even more, if the federal government enacts future taxes on greenhouse gas emissions, as expected.

Implementation of the Plan will require legislative changes to existing law. "I look forward to working with legislators to implement an energy plan," Lark said.

An Executive Summary of the plan follows.

The entire 21st Century Energy Plan, including its appendices, is located on the MPSC Web site: www.michigan.gov/mpsc.

EXECUTIVE SUMMARY

This Plan provides the backbone for a growing 21st century Michigan economy by enhancing the state's ability to power itself through the use of renewable resources, energy efficiency measures, and the cleanest available utility-built generation. This is Michigan's first electric energy plan in 20 years, and it is sorely needed. During those 20 years the production and delivery of electric power was transformed by the introduction of regional wholesale markets and competition. Without a comprehensive electric supply plan, Michigan is left to the vagaries of the Midwest Independent Transmission System Operator (MISO) [1] energy market. Current trends with respect to wholesale market prices and transmission congestion suggest that future electric energy in the markets operated by MISO will be costly and volatile. [2]

The Plan looks at Michigan's electric needs for the next two to 20 years. Extensive modeling was done to enhance our understanding of Michigan's energy needs and to verify policy initiatives. As the Governor aptly stated, energy is critical to the public good, and enhancement of the public good is the underlying principle of the Plan. The Plan advances the goals of supporting economic development, improving environmental quality and promoting resource diversity, while ensuring reliable electric power.

This Plan will grow Michigan's 21st century economy by making investment in baseload generation possible, by fostering investment in energy efficiency programming and renewable energy, and by adopting procedures to enable the use of emerging technologies. Each of these areas will see job growth in the areas of design, construction, operation and maintenance, as the fundamentals of the Plan are put into place. The Plan strengthens the state's economy by enabling the growth and use of in-state generated resources, unleashing the entrepreneurial talent of developers of renewable and distributed resources and efficiency-related products, and by allowing the state to avoid undue reliance on energy produced by other states.

This Plan will protect customers by allowing utilities to meet their obligation to serve through utility-built generation that remains subject to the protections offered by state regulation protections that require prudent and reasonable management of energy assets and concern for the consumer. By ensuring that utilities can meet their obligation to serve, and putting in place renewable energy and

energy efficiency programs, Michigan can be certain of stable rates for all customers over the long term.

This Plan will protect our environment by requiring that all utilities, cooperatives, and alternative electric suppliers begin to grow their renewable energy portfolios and make efficiency a priority. Michigan currently generates about 105 million mega-watt hours (MWh) of electric power annually. Every MWh that is generated by a renewable resource or that is avoided through use of efficiency measures displaces a MWh of fossil-fuel-fired generation and its associated emissions. While protecting our health, these measures also make economic sense by making Michigan's electric capacity more reliable and affordable.

Michigan's peak electric demand is forecast to grow at approximately 1.2 percent per year over the next 20 years. At this rate, and given the long lead-time necessary for major plant additions, additional baseload generation[3] is projected to be necessary as soon as practicable but no later than 2015. No new baseload units have been built or even started in recent years, [4] due, at least in part, to the structure of Michigan's hybrid market that makes reasonable financing terms difficult, if not impossible, to obtain.

Moreover, reliance on only traditional, central station generating units[5] that typically burn coal or natural gas, exposes Michigan's ratepayers to higher costs arising from fuel price volatility and future air emissions regulations. If new baseload generation is to be built, it must be within the context of a larger state policy that requires the use of renewable resources and energy efficiency measures first. These measures will promote job growth and the stability of Michigan's economy, protect the health of our citizens, and, if fully carried out, save money for Michiganians. Adoption of the Plan's recommendations is projected to lower Michigan's total electric generating costs over the next 20 years by $4 billion. Failure to adopt the Plan's recommendations will force Michigan to rely on natural gas fueled combustion turbines and volatile wholesale electric markets that modeling shows will cost significantly more than a portfolio that includes energy efficiency, renewable energy and traditional baseload generation. Two billion dollars of the cost savings is projected to arise from use of new baseload generation; and $2 billion of the cost savings is projected to arise from employment of energy efficiency and renewable energy programs.

The Plan proposes three major policy initiatives that will require a combination of regulatory action, executive or administrative proposals, and statutory changes to provide the state with access to an expanded portfolio of electric resources.

(1) Building New Generation Plant

The Plan provides the opportunity for utility-built generation, within the context of a comprehensive electric resource portfolio that includes renewable resource and energy efficiency measures. A utility that will need additional power supplies can choose to build new generation under one of two regulatory frameworks, the traditional regulatory approach or a new option recommended under the Plan. Under the traditional "used and useful" option, the utility could follow existing procedures and request recovery of its costs in rates after the plant is built. Alternatively, a utility will be able to file an integrated resource plan that evaluates the ability of renewable resources, energy efficiency measures, external markets, and existing traditional generation to meet forecasted demand. This filing initiates a contested case proceeding allowing public input in the planning process. If the utility demonstrates a need for new baseload generation, the Commission may approve the decision to build the plant by issuing a Certificate of Need.

Once the Certificate of Need is granted, the utility would be required to competitively bid the engineering, procurement, and construction aspects of the project. The Commission, at its discretion, could extend its current policy of allowing recovery of financing costs during construction for pollution control investments to part, or all, of the financing costs of the proposed plant. The plant would not receive rate base treatment until it began commercial operation and the Commission determined its cost to be prudent. The Certificate of Need, however, precludes any later challenge to the usefulness of the plant. Creating the Certificate of Need option will enhance utilities' ability to obtain financing for such a project by reducing the risk that future revenues will not be available to cover the reasonable project costs.

To further enable utilities to construct new generation to meet expected needs, the Plan recommends additional regulatory measures to make it easier for utilities to predict customer demand and revenues available to cover reasonable power costs while maintaining Michigan's hybrid market. The Plan recommends that the Commission move toward rates based on the actual cost of serving customers, requires customers who cause a plant to be constructed to contribute to the plant's cost recovery, and imposes new time limits on customers who have left regulated service and wish to return.

(2) Renewable and Alternative Energy

The Plan recommends a statutorily required renewable energy portfolio standard implemented by the Commission with the flexibility to deal with changing circumstances, and cost implementation. The standard will apply to all load serving utilities in Michigan. The portfolio standard requires load serving entities to reach 10 percent of their energy sales from renewable energy options by the end of 2015. Entities could meet the standard by building and owning renewable generators, by contracting with in-state renewable generators, by buying qualifying renewable energy credits, or by making an alternate compliance payment. The Commission would be empowered to defer the standards if the cost was unexpectedly high, insufficient renewable power was available, or it posed a hardship on a utility's customers. The Commission would also be required to determine, contingent upon a review of the performance of the program prior to 2015, whether to extend the goal to 20 percent of energy sales from renewable energy options by the end of 2025.

A required RPS is a win-win proposition. It will encourage the creation of in-state jobs, reduce pollution and dependence on fossil fuels, diversify Michigan's fuel mix, and provide a measure of protection from potential expensive emissions regulations.

The Commission's rules, regulations and tariffs should be reviewed to assure that they do not obstruct development and adoption of distributed generation[6] and alternative energy technologies. The Plan recommends property tax relief be made available to homeowners who install solar, wind, fuel cell, or other small renewable generation resources. The Plan also recommends that the Commission be authorized to conduct a pilot program on solar applications, to establish distribution system use tariffs that allow distributed generators to use a utility's distribution system to move power to customers, and to increase the maximum participant size of its net metering program.

In addition to obtaining the benefits of portfolio diversity, greater protection of the distribution system is warranted. To harden the state's infrastructure, reduce distribution vulnerability, and enhance the beauty of Michigan, the Plan recommends that the Commission undertake an investigation of the cost of extending the requirement to bury power lines to poorly performing circuits, all secondary distribution line extensions (and primary lines on the same poles), and all primary and secondary lines along road rights-of-way that are undergoing reconstruction. If the cost is deemed reasonable, the Plan further recommends that the Commission undertake rulemaking to require this extension.

(3) Energy Efficiency

The Plan recommends creation of the Michigan Energy Efficiency Program, a comprehensive, statewide energy efficiency program. To assure performance and public accountability, a third party will administer the program under the supervision of the Commission. The program's initial funding level will be $68 million annually, and will be adjusted for the subsequent two years at the conclusion of a contested case (with a budget goal of $110 million by the third year of operation). The program will be funded by a non-bypassable surcharge.[7] The program administrator will receive performance-based incentive payments for achieving specific energy savings goals. The Commission will conduct a public proceeding every three years for all retail electric distribution utilities, to adjust the scope and goals of the program.

Resource modeling indicates that even a conservative energy efficiency program could, after 10 years, reduce Michigan electric peak demand by 660 MW resulting in long term cost savings to customers. Moreover, use of energy efficiency reduces use of fossil fuels and their attendant emissions, and can reduce exposure to unpredictable fuel prices and potential future air emissions restrictions.

The Plan also recommends that the Commission be authorized to require the use of active load management measures by utilities immediately. Active load management measures are estimated to reduce demand by 570 MW in 10 years. Pilot programs, designed to assist customers in managing their electric load and reducing their costs, are also recommended. These pilot programs will employ advanced metering infrastructure to provide real time price information to customers.

The Plan further recommends that the Governor direct the Department of Labor & Economic Growth (DLEG) to conduct a collaborative process to improve the energy efficiency of new construction in Michigan, and analysis and development of state appliance efficiency standards by the State Energy Office.

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[1] MISO is the independent transmission organization serving Michigan. MISO operates the transmission systems of member companies in 15 states and the province of Manitoba, consisting of 100,000 miles of high voltage transmission lines. MISO is also responsible for coordination of electric reliability in this area, and for managing the Midwest's wholesale markets.

[2] For example, on August 3, 2006, wholesale market prices in Michigan increased from $33 per megawatt-hour (MWh) in the early morning to $475 per MWh in the evening. For the entire month of August, prices were above $100 per MWh for 20 percent of the on-peak hours, much higher than the average price for which our in-state utilities can deliver power to their customers.

[3] Baseload refers to plants that are intended to run constantly at near-capacity levels. Such plants are highly capital intensive to build, but have low operating costs.

[4] The last new baseload plant began commercial operation 18 years ago.

[5] Most electricity in the U.S., including Michigan, is produced by large, centralized power plants fueled by fossil fuels (coal, natural gas, oil) or uranium. Central station plants produce many megawatts of power and usually serve thousands of customers.

[6] Distributed generation refers to small scale, non-utility generation that provides power at a site closer to the customer.

[7] An energy efficiency program with a budget of $110 million would require a non-bypassable charge of approximately one mill per kilowatt-hour (kWh) (a mill is one-tenth of one cent). For a customer taking 500 kWh of service per month, this would translate to a cost of about 50¢ per month.