

4. Energy Efficiency Policy

4.1 Summary of Recommendations

Staff developed four policy recommendations based on the efforts of the Energy Efficiency Workgroup.

1. Create by statute a comprehensive statewide energy efficiency program overseen by the Commission, administered by an independent organization, and funded through surcharges on ratepayers.
2. Establish statutory support for the Commission to investigate and authorize comprehensive electric demand response initiatives.
3. An Executive Directive should be issued to commence a collaborative process to assure that energy efficiency improvements will be incorporated into new Michigan residential and commercial construction. Upon completion of the collaborative process, the Department of Labor & Economic Growth should file a report with recommendations to the Legislature.
4. Establish appliance efficiency standards following an Executive Directive to the State Energy Office to analyze, develop criteria, and to file a report and recommendation to the Legislature.

4.2 Introduction and Workgroup Process

Michigan currently has an ad hoc arrangement of utility load response programs, low-income energy efficiency funding, and state energy services, but no statewide coordinated energy efficiency programming. Michigan ratepayers presently spend a small amount of money on energy efficiency programs, but it is targeted to low-income customers as a result of the Commission's implementation of a Low Income and Energy Efficiency Fund (LIEEF). The fund, originally authorized by Act 141, is primarily used to provide payment assistance for low-income customers rather than energy efficiency services.

Other states, however, have enacted comprehensive energy efficiency legislation and implemented energy efficiency programs. Successful state programs, like Vermont's and Wisconsin's, were discussed by the Workgroup. In addition, participants developed, shared, and commented on strawman proposals. Participants provided essential information and were instrumental in helping to refine Staff's recommendations.

Staff believes the potential economic and employment benefits associated with increased energy efficiency should be recognized and given serious consideration by policy makers. In formal energy efficiency programs, all proposed energy saving measures and packages are scrutinized to make sure cost savings will exceed investment cost, and most measures pay for themselves through reduced utility bills in the matter of just a few years or less. Many studies have explored the relationships between energy efficiency programs and state and local economic and employment impacts, and identified positive and significant results. One general finding is that businesses associated with energy efficiency measures tend to be more labor intensive compared to the traditional energy and utility industries. Another is that positive impacts accrue when

utility bills decrease and, in turn, consumer discretionary spending increases. And a third important finding, especially for energy importing states like Michigan, is that local and state economic multipliers associated with efficiency measures are typically higher than for fuel purchases and utility bill payments. Therefore, studies typically find that economic and employment gains go hand in hand with energy efficiency programs.³² Staff recognizes our proposal calls for tens of millions of dollars of new expenditures on energy efficiency programs, each year for several years to come. But, there is every reason to believe these will prove to be investments with multiple positive returns for all Michigan electricity customers.

Table 4 (p. 74) presents the complete outline for a proposed Michigan Energy Efficiency Program.

4.3 Proposal for Michigan Energy Efficiency Program

4.3.1 Program Creation

Staff recommends legislation creating a statewide electric energy efficiency program under the oversight and guidance of the Michigan Public Service Commission. The Plan's centerpiece program, the Michigan Energy Efficiency Program (MEEP), would require all utilities to participate in a program administered by a third-party and would allow the Commission to disburse money from a public trust fund, the Michigan Energy Efficiency Fund.

The proposal draws heavily from successful energy efficiency program models implemented in other states. Replicating other states' successes avoids the time, risk, and expense of developing a program structure from scratch. Creating a single statewide program will provide economies of scale by spreading program administrative costs over a large customer base. This will benefit smaller utilities, cooperatives and municipal utilities that lack sufficient revenue to support the base infrastructure needed for a comprehensive and diverse energy efficiency program.

4.3.2 Program Administration

Participants are split over the program's structure, some advocate utility administration of efficiency programs, while some utilities support a third-party framework. Staff recommends third-party administration, with the MEEP program administrator operating independently, not as an officer, employee, or agent of the state. The program administrator would contract with the Commission through a competitive solicitation process. The solicitation process and resulting contract would define the scope of services.

A single statewide program administrator provides several significant benefits. Continuity from a single entity is an efficient mechanism for a statewide program to bring about "market transformation" in end-use energy efficiency markets. With respect to energy efficiency, market transformation relates to a change in the culture of energy use and the availability of efficient end

³² See, for example, Howard Geller, John DeCicco, and Skip Laitner; 1992; *ED922, Energy Efficiency and Job Creation*; and Skip Laitner, *et al.*, 1995, *ED951, Energy Efficiency and Economic Development in the Midwest*; Washington, DC, American Council for an Energy-Efficient Economy; <http://www.aceee.org>.

use devices. The goal of market transformation would be reduction of program incentives as energy customers and service providers become more aware of energy efficiency options and as implementation of efficient end-use devices become commonly accepted. Retrofitting, new technology purchases, or new construction or new process technologies contribute to market transformation as efficiency measures become more available and accepted. Retail appliance vendors, businesses providing energy efficiency services and customers will benefit from consistent and comprehensive statewide programming.

Using an unaffiliated third party administrator to oversee a statewide energy efficiency program corrects a fundamental conflict; utility revenues and profits depend on higher sales levels, while energy efficiency programming reduces sales. The process of selecting the third party administrator and program parameters would be established in a contested case process, which allows for extensive public input. The Commission, with the advice of a solicitation screening committee, would select the administrator. The screening committee would be chaired by the Commission chairman, and include the director of the Department of Management and Budget, the director of the Department of Treasury, and two outside experts in energy efficiency programming.

Performance-based competitive bidding ensures efficient provider contracts. Legislation should allow the Commission to evaluate the MEEP administrator, under a performance-based contract which includes concrete energy savings targets. In addition to pay-for-performance, the contract should be of sufficient length to allow administrative efficiency and long term program stability. The contract should be at least three years long and include an opportunity for a three year renewal if the program administrator meets the program's goals.

The MEEP administrator would be reimbursed from the MEEF for actual costs, including the cost of financing expenses and eligible program costs, administration costs, and performance based incentive awards. Incentives would be based on annual program evaluations conducted by an independent evaluation contractor. The MEEP administrator should be allowed to deliver energy-efficiency programs itself or through subcontractors. To avoid conflicts of interest, the program administrator and sub-contractors should not be affiliated with retail electric providers or related entities in Michigan. While the Commission would exercise primary authority over the program, legislation would establish the structure, oversight and review responsibilities.

Table 4: Staff Outline of Legislative Initiative for a Proposed Michigan Energy Efficiency Program (MEEP)

Program Creation	<ul style="list-style-type: none"> • Commission authority granted, after notice and hearing, to provide for the development, implementation, monitoring and evaluation of a statewide energy efficiency program. • All retail load serving entities in the state required to participate. • All retail electric customers eligible to receive efficiency services.
Program Administration	<ul style="list-style-type: none"> • Delivery through an independent program administrator. • Program administrator not affiliated with retail energy providers in the state. • Commission selects the program administrator through a transparent solicitation. • Solicitation process includes an opportunity for public input. • Screening committee assists with selection of the program administrator. • Program administrator operates under a direct contract with the Commission.
Oversight	<ul style="list-style-type: none"> • Public hearings underlie Commission determinations. • Program evaluation will be provided by independent contractors. • MEEP Advisory Committee facilitates public input process. <ul style="list-style-type: none"> • Committee consists of 2 representatives of IOU's, one representative of retail electric cooperatives, one representative of municipal utilities, two representatives of customer groups, and two representatives of consumer advocates. • Mandatory reports to Legislature. • Annual performance evaluation.
Funding Levels	<ul style="list-style-type: none"> • First year funding level \$68 million. Commission will conduct a public hearing to determine the second and third year budget, with a goal of \$110 million in the third year. • Commission may set higher or lower funding levels, after triennial notice and hearing that coincides with three year term of contract with program administrator. • Factors to be considered by the Commission in its order changing funding levels include: <ol style="list-style-type: none"> 1. updated potential studies of demand and energy savings, 2. benefit/cost studies, 3. evaluations of program effectiveness, and 4. studies of economic costs and benefits of reducing or delaying construction of electric generating plants or transmission lines. • Triennial proceeding provides a forum for Commission to: <ul style="list-style-type: none"> • define specific programs; • set goals, priorities and performance targets and other factors it determines appropriate; • and allocate funding requirements by utility. • Non-bypassable Michigan Energy Efficiency Surcharge applied to all retail electricity sales on a per kWh basis.
Public Benefits Fund	<ul style="list-style-type: none"> • Public trust fund created, called the Michigan Energy Efficiency Fund. • Fund created in the State Treasury and administered by the Commission. • Fund may receive personal or corporate donations. • Commission approves disbursements from the fund. • Commission draws direct oversight expenses from the fund.
Program Design	<ul style="list-style-type: none"> • Spending in customer classes generally in line with revenues from these classes. • Specific programs tailored to needs of each customer class, and differentiating between non-manufacturing and manufacturing sectors. • Broadly defined performance targets and considerable freedom in setting program parameters provided to program administrator by performance based contract. • Manufacturing efficiency programs focus on total process efficiency.
Large Customer Opt-Out	<ul style="list-style-type: none"> • Manufacturing customers with a peak demand of 1 MW or more, that demonstrate self-delivery of efficiency measures.

4.3.3 Oversight

Michigan has a long history of strong public input in its regulation and oversight of public utility energy efficiency programs. A strong public input process is a necessary component of the energy efficiency program. Public input would be received at all stages of the implementation and review process using the Commission's notice and hearing process. Stakeholders could submit comments and expert testimony. Customers of all load serving entities would be required to participate.

Legislation would grant the Commission authority to hold contested cases to determine program elements. Moreover, the Commission could change funding levels through triennial contested cases. Legislation could establish specific criteria as a prerequisite to adjusting funding levels.

Public input would be incorporated by way of the creation of a Michigan Energy Efficiency Program Advisory Committee. The advisory committee would be an independent body, with appointments made by the Commission. It would include representatives of regulated utilities, electric cooperatives, municipal utilities, customer groups, and consumer advocates. The advisory committee would provide advice and recommendations to the program administrator, but would have no authority over it. Nevertheless, the advisory committee would serve as a key feedback link from stakeholders to the program administrator.

Multiple types of benefit/cost tests should be used in studies and evaluations, including potential demand and energy savings studies and tests, to provide evaluation data. Results should be conveyed to the Legislature and Governor every three years, with the first report due one year after the end of the initial three year implementation. The Commission should be allowed to contract for evaluation studies using a dedicated portion of the Michigan Energy Efficiency Fund or undertake the evaluation through its Staff. The Commission would fund up to three Staff positions from the fund for program oversight.

Program spending should include all of a utility's service area. The MEEP administrator's report to the Commission, and the Commission's report to the Legislature, should include the geographic distribution of spending and descriptions of program mechanisms to ensure equal funding distribution.

4.3.4 Large Customer Opt Out

A large customer opt-out option is a matter specifically addressed in the Plan strawman proposals. Many participants agree a statewide energy efficiency program might include large customer opt-out, although some participants prefer no exclusion.

Exclusion advocates argue that large users have sufficient expertise to identify and undertake cost-effective energy efficiency measures and investments. Exclusion opponents argue all customers face market barriers to full implementation of energy efficiency, and customers who do not participate may obtain indirect benefits such as lower marginal costs of power. A compromise would allow a large customer opt-out on the condition it is implementing its own proposal for energy efficiency projects in its facility. The Association of Businesses Advocating

Tariff Equity (ABATE) offered a specific qualifying demand level for a simple opt-out of 500 kW.

Staff recommends a conditional opt-out, restricted to large manufacturing electric users with a billing demand of at least 1 MW, after submitting to the MEEP administrator and the Commission a qualifying energy efficiency proposal. The Commission would have exclusive authority to permit a customer to opt-out of the program. Michigan has a large commercial and industrial base. Almost 70 percent of Michigan's current electrical consumption is related to the commercial and industrial sectors. MEEP should place a high priority on meeting the business community's needs. For the manufacturing sector, MEEP would work with businesses to design, implement, and finance industrial energy efficiency initiatives tailored to specific firms or industries. This is a more focused approach than a broad rebate for efficient industrial motors or another generic electric end-use efficiency technology. Technical assistance, rebates, low-interest loans, or loan guarantees could all be included. A loan, loan guarantee, or Pay As You Save™ (PAYS®)³³ program might be directed to a specific electric energy end-use application or as a component of a customer's overall energy or process efficiency project or strategy.

4.3.5 Funding Levels

Similar to Michigan's LIEEF, MEEF would be held in a restricted Department of Treasury account. Funded primarily through electric utility surcharges, MEEF would be dedicated to achieving energy savings for the state. Funds would not lapse into the state's general fund but would be used only for MEEP related costs. Accrued interest should remain in the fund.

4.3.6 Public Benefits Fund

Money disbursed from the fund would be used for MEEP administration, program education and marketing, research and development grants, and evaluation studies. A portion should be available to the Commission for oversight expenses and special studies. To minimize ratepayer impact, the fund should be permitted to obtain financing from non-utility capital sources such as private foundations, personal or corporate donations, and seek state or federal funding opportunities. The Commission and program administrator should develop independent efficiency funding sources that leverage non-ratepayer funds. Surcharge contributions might be exempt from state sales tax and local or municipal utility taxes.

Energy Efficiency modeling performed for Staff in the Plan estimated a budget up to \$114 million/year would be cost effective. However, Staff recommends starting with an initial annual level of \$68 million in the first year, with funding for the second and third year determined by the Commission after conducting a public hearing to affirm a goal of \$110 million in the third year. Funding levels and resulting changes would be set every three years thereafter following a public hearing that considered program evaluations, benefit-cost studies, and energy efficiency potential. Fund revenue would be raised through a surcharge on electricity bills, through one of two methods of revenue collection. Under the first option, the MEEF charge would be set on a uniform basis for all customers in the state, including electric choice

³³ See <http://www.paysamerica.org>.

customers. The same charge, in mils per kWh (1 mil is one-tenth of one cent) would be paid by all customers receiving retail electric distribution services, including customers of municipal utilities.

Under the second option, MEEP program costs would be allocated by rate-class, potentially resulting in different mil/kWh charges. The rate-class allocation method has an advantage because it can provide the Commission with additional flexibility compared to a uniform charge. The additional flexibility of the rate class allocation method allows energy efficiency spending targets to be optimized for each rate class. The Commission should be allowed to set the charge using the method that it deems most appropriate.

Energy efficiency program spending in a utility's service territory should align with funding provided by that utility's customers. Spending by customer class or type should align with MEEF revenues.

4.3.7 Revenue Decoupling

Revenue decoupling refers to the separation of utility revenues, or profits, from the impacts of energy efficiency programs. Plan participants agree electricity sales and demand reductions stemming from efficiency programs should be incorporated into rates, but disagree whether decoupling is needed. Consensus on a specific approach for decoupling that is fair and cannot be gamed remains elusive. Staff believes the current rate-making process allows the Commission to consider and authorize rates in future periods that can accommodate actual and expected impacts of efficiency programs.

Decoupling for efficiency programs may be desired in the instance of utility administered energy efficiency programs. The disincentive to reduce sales for a utility, and the incentive to increase sales and profits, is large. Staff's recommendation shifts the responsibility to promote energy efficiency programs from the utility to the third party administrator, and thus obviates the need to decouple for that reason. However, adverse effects on utility earnings may result from program induced sales and demand reductions, particularly from the largest, most effective energy efficiency programs, if the rate setting process fails to recognize the resulting sales and demand impacts.

4.4 Michigan Appliance Efficiency Standards

Staff recommends Michigan should implement state-specific appliance standards based on resource assessments and analysis developed by the ACEEE/ASAP – The Workgroup considered the opportunity for Michigan to set state-specific appliance efficiency standards. Various participants provided input, with considerable input from the American Council for an Energy Efficient Economy (ACEEE) and the Appliance Standards Awareness Project (ASAP). State mandated standards may result in a significantly higher market penetration level of energy efficient products at a reduced cost of implementation compared to an incentive-based energy efficiency effort.

As noted in the resource assessment section of this report, the participants were able to identify specific appliance categories not subject to the Energy Policy Act of 2005 (EPACT05) that might be included in Michigan efficiency standards. However, due to time constraints, the participants were unable to review the feasibility of technical improvements associated with each appliance type. They were also unable to coordinate efforts with other states considering the implementation of appliance efficiency standards or investigate the formal, detailed language that is required to establish a particular product's legal standard for efficiency.

Staff recommends the State Energy Office in the Department of Labor and Economic Growth be directed by the Governor to provide further analysis and recommendations for the development of Michigan-specific appliance efficiency – Upon completion of its review, the State Energy Office should file with the Legislature a report and recommendations pertaining to appropriate legislation. The report should identify specific products that should be targeted, the need for any federal pre-emption petitions, appropriate benefit/cost analysis, and projected energy and demand savings. Technical feasibility of the proposed product standards should also be addressed.

The Energy Office should coordinate its efforts with other states in the process of developing recommendations pertaining to state appliance efficiency standards to avoid setting conflicting standards. Also, the Energy Office should coordinate its work with the Commission to ensure MEEP efforts appropriately complement any proposed state appliance efficiency standards initiative.

Finally, although the Plan was restricted to electric issues, the State Energy Office effort should include both electric and natural gas appliances.

4.5 Building Code Update

Several participants suggest that building codes should be updated as part of a comprehensive energy strategy for Michigan. Staff agrees.

On the basis of studies outlined in the resource assessment section of this report, Staff determined that updating Michigan's commercial building code represents a regulatory option that would provide substantial energy efficiency improvement at a modest cost. Lighting represents the dominant end-use in commercial sector electricity consumption, and lighting efficiency improvements typically show the largest savings impact. Lighting uses approximately 25 percent of the electricity in commercial buildings. Updating the residential code has the potential to provide cost-effective energy savings as well.

Staff recommends that the Governor direct the Department of Labor and Economic Growth (DLEG) to commence a broad-based collaborative of stakeholders as a platform to undertake a critical review and analysis of energy efficiency in building design and construction, culminating in recommendations and methods to – (1) incorporate the latest technologies to improve energy efficiency in all buildings in Michigan; (2) develop procedures for increasing the accuracy of economic analysis of updated energy code amendments, including development of appropriate measures for benefit/cost analysis, and to base the analysis on

actual/projected energy costs as well as general inflation factors; and (3) recommend changes that could facilitate the rapid adoption of the latest codes and standards so as to increase the energy efficiency of building design and construction in Michigan for both commercial and residential buildings.

Upon completion of its review, DLEG should file with the Legislature its report and recommendations. The collaborative should include participation by the Bureau of Construction Codes, the State Energy Office, the Michigan Public Service Commission, building industry stakeholders and trade associations, and consumer representatives.

4.6 Demand Response Programs

The Plan's process of identifying demand response policy issues began with the Workgroup's creation of a demand response team to investigate technologies, techniques, and rate-making methods needed to implement a demand response program.

Demand response refers to customer efforts to reduce consumption (demand) in response to price signals, incentives, or directions from grid operators. Grid operators may use demand response to reduce demand during periods of high wholesale price, to provide a system resource alternative to generating capacity in response to short-term system reliability constraint.

Michigan utilities provide a diverse range of demand-response programs, but they have experienced low participation rates. Detroit Edison's residential air-conditioning cycling program, a direct load control program which currently has over one quarter of a million customers, is an exception.

The resource modeling phase of the Plan demonstrates that even a limited statewide effort can result in large electricity capacity reductions. Demand response programs fall into two general categories, active (direct) load-control programs (also called load management), and passive (price-response) programs. Both categories can be implemented using established technology. Nonetheless, participant consensus suggests a statewide effort to expand customer participation in demand response programs will depend on advanced technology infrastructure. Some could be implemented in conjunction with time-of-day, critical peak, or real-time rate structures.

4.6.1 Barriers to Adoption of Demand Response

Four primary barriers are preventing greater customer demand-response participation in Michigan. They impede efforts to expand implementation of demand response programs to realize the maximum potential impact on electric demand. These are:

1. ineffective customer incentives resulting from sub-optimal or inaccurate electricity price signals;
2. absence of demand response and ancillary services markets that could assist in funding effective customer incentives;
3. lack of wide-scale deployment of advanced metering and communications technologies; and

4. lack of actual experience combining advanced technologies with effective time-based electric rate structures.

Each of these barriers is discussed in the following sections. A detailed discussion of available new technologies, including smart metering, is contained in the Chapter 5 of Appendix Volume II.

Barrier 1: Incentives derived from accurate electricity price signals – A key barrier to increasing the level of demand-response resources in Michigan relates to rate and tariff structures. Appropriate price incentives are a foundation of both active demand response programs (interruptible and direct load control) and passive demand response programs (time-based rate structures). For both, price-response induces a change in demand.

In the new Midwest wholesale markets prices are market-driven and can vary significantly by time-of-day, day-to-day, and season-to-season, whereas retail rates are historically set on an annual, weighted average cost basis. While retail rates produce price stability by smoothing out the dynamic movements in utility power costs at the wholesale level, they effectively break the connection between retail demand for electricity and wholesale prices.

In line with the recent statements of federal policy in EPACT05, Staff recommends that the Commission explore rate structures that follow appropriate electricity price signals and signal customers to eliminate this barrier to demand response measures and thereby promote economic efficiency.

Barrier 2: Absence of demand response and ancillary services markets – There is currently no available market mechanism for selling or trading benefits from demand response initiatives. In such a market, Michigan’s load serving entities could sell demand resources into the wholesale energy market. Revenues received might be used to cover or complement program incentive payments.

Demand response could also be used to provide “ancillary services” such as operating reserves, or bid into Midwest energy markets, with additional revenues to be gained for Michigan. Staff notes that these markets for demand response are currently not available through MISO, although MISO is working to implement them.

Barrier 3: Lack of wide-scale deployment of advanced metering technologies – A major barrier to greater deployment of advanced metering technologies and the opportunity to offer customer level demand response programs is the current lack of a clearly articulated policy direction in Michigan. Commission demand response program policy would also encourage electric-utilities to expand their corporate growth strategies to embrace a strong commitment toward capital investment in advanced technologies necessary to support demand response programs.

Barrier 4: Uncertainty due to lack of experience combining advanced technologies with effective time-based rate structures – All the above barriers combine to yield a current situation in which Michigan utilities have little incentive to lead initiatives for demand response

programs unless they can show clear benefits for the utility, therefore, Michigan utilities and their customers have little experience in this area.

For some active load management programs like interruptible air conditioning, there is a long history of experience. Utilities have generally not expanded these programs for the past several years, however, even though they can be effective at managing load and lowering power costs. We recommend legislation be enacted to authorize the Commission to require these programs, where they can be shown to be cost-effective and in the public interest.

In response to the impact of these barriers on price responsive demand programs, Staff believes the best approach is to implement a pilot program, as an essential prerequisite for developing needed real world data and experience with various advanced technologies. The Energy Efficiency Workgroup asked participants for proposals that would define a pilot program action plan to commence such a program. DTE responded with a workable and well thought-out proposal to address specific issues. Staff used this proposal as a basis for its recommendation.

Staff is recommending that the Demand Response Action Plan include three workgroups comprised of a Demand Response Rate Options Workgroup; an Advanced Metering Infrastructure Workgroup; and a Demand-Response Pilots and Advanced Appliances Workgroup. Each workgroup would be charged with developing statewide proposals with multiple policy options. The efforts of all three workgroups would be coordinated by a Demand Response Steering Committee chaired by the Staff, and including representatives from all stakeholders.

To implement the collaborative process and workgroup structure, Staff recommends the Commission commence a Notice of Inquiry of Demand Response Pilot Programs. The directive should include all demand response stakeholders and specify a deadline for final reports. After the demand response workgroup documents are submitted to the Commission and the programs are demonstrated to be cost-effective and in the public interest, an order would be issued and further docketed proceedings implementing demand response pilots or programs would begin.

To assure that demand response programming is fully and completely evaluated, Staff recommends that legislation authorize the Commission to require demand response programs upon a finding of that these programs are cost effective and in the public interest.

4.6.2 Policy Recommendations for Demand Response Programs

Staff makes the following recommendations:

1. Commence a Commission “Notice of Inquiry for Demand Response Programs” in order to affect a statewide collaborative process, culminating in demand-response pilot programs.
2. Provide legislative authority for the Commission to require regulated electric utilities to investigate demand response programs, and implement programs if they are found to be in the public interest. Utilities could be required to offer demand response programs, for example through special time-of-use-rates, but customer participation would be optional.

4.7 Summary of Energy Efficiency Policies

In summary, Staff proposes the creation, by statute, of a comprehensive statewide energy efficiency program funded through surcharges on all Michigan electricity customers, with oversight and guidance provided by the Commission. The program shall be administered by an independent organization. In addition, Staff proposes legislation for the Commission to investigate and authorize comprehensive electric demand response initiatives. By Executive Directives to the appropriate offices in the Department of Labor and Economic Growth, Staff proposes updating Michigan’s commercial and residential building codes, and analyzing and developing criteria for the establishment of stronger electric appliance efficiency standards.

5. Governor's Executive Directive 2006-2

EXECUTIVE DIRECTIVE No. 2006-2 21st Century Energy Plan

WHEREAS, Section 1 of Article V of the Michigan Constitution of 1963 vests the executive power of the State of Michigan in the Governor;

WHEREAS, under Section 8 of Article V of the Michigan Constitution of 1963 each principal department of state government is under the supervision of the Governor unless otherwise provided by the Constitution;

WHEREAS, it is critical to the public health, safety, and economic welfare of the State of Michigan to have reliable, safe, clean, and affordable supplies of energy;

WHEREAS, recent price shocks in the international and domestic energy markets have resulted in rising energy costs that have placed increased strain on Michigan businesses and citizens, especially low-income residents struggling to pay utility bills;

WHEREAS, Michigan has the intellectual, agricultural, and industrial capabilities to become America's alternative energy development epicenter, which offers a tremendous opportunity to diversify our economy and provide high-tech, high-wage, 21st century jobs to our residents;

WHEREAS, the Michigan Public Service Commission prepared and issued the Capacity Need Forum Report on January 3, 2006, after consultation with stakeholders representing all segments interested in the electric energy market including representatives from customer groups, business groups, utilities, independent transmission companies, environmental groups, energy efficiency advocates, independent power developers, and alternative and renewable energy providers, and this report makes clear that Michigan will need additional electric supply to meet its needs beginning in the year 2009;

WHEREAS, the Capacity Need Forum Report reflects a concern that institutional factors, including existing state laws and regulatory constraints, may impede the development of reliable, safe, clean and affordable electric energy supplies to meet the needs of our citizens and businesses;

WHEREAS, knowledge of the nature, location, and reliability of energy supplies, including the availability of alternative energy supplies, is critical to effective long term planning for this state and local units of government, including law enforcement, infrastructure development, transportation and land use planning, as well as for businesses seeking to locate or expand in Michigan;

WHEREAS, Michigan's unique geography increases the challenges for transporting energy and increases the need for a focus on the unique needs of both the Lower and Upper Peninsulas;

WHEREAS, a comprehensive energy plan can provide a framework for the state's future energy needs and stimulate economic growth by planning for a reliable, safe, clean, and affordable supply of energy for Michigan's future;

NOW, THEREFORE, I, JENNIFER M. GRANHOLM, Governor of the State of Michigan, by virtue of the power and authority vested in the Governor by the Michigan Constitution of 1963 and Michigan law, direct the following:

A. Not later than December 31, 2006, the Chairman of the Michigan Public Service Commission shall prepare a proposed Energy Plan for the State of Michigan. The plan shall address the following:

1. The state's short-term and long term electric needs for residential, industrial, commercial, and governmental customers shall be met in an optimum manner that assures a reliable, safe, clean, and affordable supply.
2. The future development of Michigan's electric infrastructure shall further the state's competitive business climate, grow jobs, and provide affordable rates for all customers.
3. The appropriate use and application of energy efficiency, alternative energy technology, and renewable energy technologies shall be consistent with the goal of assuring reliable, safe, clean and affordable energy.
4. This state's natural resources and the environment shall be protected from pollution, physical or visual impairment, or destruction, and future risks associated with fossil fuels shall be mitigated.
5. A renewable portfolio standard shall be created that establishes targets for the share of this state's energy consumption derived from renewable energy sources.
6. New technology options to generate, transmit, or distribute energy more cleanly or more efficiently shall be identified.
7. The state's economic interest in ensuring development of the intellectual capital, financing, infrastructure, and other resources necessary for continued growth of alternative and renewable energy technologies within the state shall be fostered.
8. The plan shall identify any legislative or regulatory changes necessary to its implementation, together with any financial, funding, or incentive mechanisms needed to best position the state to meet the energy challenges of the future.

B. The Chairman of the Public Service Commission shall consult with the directors of state departments and agencies as he or she deems necessary or advisable, and shall consult with appropriate stakeholder representatives. All departments, agencies, committees, commissioners, or officers of this state shall give to the Chairman of the Public Service Commission any necessary assistance to fulfill this Directive. Free access also shall be given to any books,

records, or documents in its, his, or her custody, relating to matters within the scope of inquiry, study, or investigation of the Chairman of the Public Service Commission under this Directive.

This Directive is effective upon filing.

Given under my hand this sixth day of April in the year of our Lord, two thousand and six.

JENNIFER M. GRANHOLM

6. Community Participant List

AARP.....	1
Amcab.....	1
American Association of Blacks in Energy	1
American Council for an Energy-Efficient Economy (ACEEE)	1
American Electric Power	8
American Transmission Company (ATC)	3
Ameritech.....	1
Apollo Alliance.....	1
Bauer Power.....	1
Bay Energy Services	1
Bob Kildea	1
Boulanger Energy	1
Butzel Long.....	2
Capitol Group, Government and Public Affairs Consultants.....	1
Capitol Services Inc.	1
Citizens for Alternatives to Chemical Contamination	1
City of Ann Arbor.....	2
Clark Hill PLC	3
Clear Choice Development LLC.....	1
COBASYS	1
Coffman Electrical Equipment.....	1
Commonwealth Associates	1
Community Action Agency	1
Community Action Bureau	1
Competitive Power Ventures, Inc.	4
Constellation NewEnergy, Inc.	11
Consumers Energy Company	29
CSES International.....	1
Daimler Chrysler.....	1
Delta College	1
Dickinson Wright PLLC., Counselors at Law	1
Direct Energy	1
DTE Energy	24
Dykema, Gossett PLLC	1
El Paso	1
Energy Activi.....	1
Energy Advantage Consulting, Inc.	1
Energy Conversions, LLC.	1
Energy Michigan Council	1
Energy Options & Solutions	1
Energy Resources.....	1
EnVinta	1
Environment Michigan	1
Environmental Resources Trust.....	1
Erb Institute for Global Sustainable Enterprise (Univ. of Michigan)	2
Ferris State University	2
First Power, LLC	1
FordLand.....	1
Fraser, Trebilcock, Davis & Dunlap, P.C. Law Firm	3
General Motors Corporation	1

Grand Valley State University	2
Granger Energy	1
Great Lakes Renewable Energy Association	1
Holland Board of Public Works	1
House Democratic Policy Staff	1
Howard & Howard	1
IESO	1
Infineon Technologies	1
International Brotherhood of Electrical Workers (IBEW)	1
International Transmission Company	5
Julian Vail, LLC	2
Karoub Associates	1
Lansing Board of Water & Light	6
Lawrence Technological University	1
Legal Counsel, PC	1
Legislative Services Bureau	1
LS Power Development, LLC	4
Mackinaw Power	2
McKenzie Bay/Windsor Power	1
Michigan Alternative and Renewable Energy Center (MAREC, GVSU)	1
Michigan Attorney General	4
Michigan Building Trades	1
Michigan Chamber of Commerce	1
Michigan Consumer Federation	1
Michigan Department of Agriculture	1
Michigan Department of Environmental Quality	9
Michigan Department of Human Services	4
Michigan Department of Labor & Economic Growth	3
Michigan Department of Transportation	1
Michigan Department of Treasury	2
Michigan Economic Development Corporation	2
Michigan Electric and Gas Association (MEGA)	2
Michigan Electric Cooperative Association (MECA)	3
Michigan Electric Transmission Company LLC (METC)	3
Michigan Environmental Council	1
Michigan Extension Office	1
Michigan Farm Bureau	1
Michigan Floriculture Growers Council	1
Michigan Forest Products Council	1
Michigan House of Representatives	5
Michigan House of Representatives, Office of Chris Kolb	1
Michigan House of Representatives, Office of Mike Nofs	1
Michigan Independent Power Producers Association	1
Michigan Interfaith Power and Light	2
Michigan Legislative Consultants	1
Michigan Manufacturing Association	1
Michigan Public Power Agency (MPPA)	2
Michigan Public Service Commission	35
Michigan Senate, Office of Bruce Patterson	2
Michigan State University	3
Michigan Water Environment Association	1
Midland Energy	1

Mid-Michigan Community Action Agency Inc.....	1
Midwest Energy Efficiency Alliance.....	2
Midwest ISO (MISO)	5
Mirant Corporation	2
Michigan Municipal Electric Association (MMEA).....	1
Michigan Sustainable Energy Coalition (MSEC).....	1
National Wildlife Federation	3
NewEnergy Associates	7
Noble Environmental Power, LLC	1
Northern Options Energy Center	2
Northwest Michigan Human Services	1
Oakland Livingston Human Service Agency.....	1
Orion Energy, LLC.....	1
Peabody.....	3
Peake Marketing & Advertising	1
Phase 3 Developments and Investments, LLC.....	1
Pinnacle Advisors, LLC.....	1
PJM Interconnection	1
Premier Energy	1
Preston Lighting.....	1
Public Interest Research Group in Michigan	1
Quest Energy/WPS	1
Sauber & Sons, LLC., Carpentry and Renovations	1
SEMCO Energy	2
Shepherd Advisors	1
Small Business Association of Michigan (SBAM).....	3
Smigel, Anderson & Sacks	1
Society of Manufacturing Engineers.....	1
Southwest Michigan Community Action Agency	1
State Representative Mike Nofs' Office.....	1
Strategic Energy	1
Svanda Consulting	1
Technology, Energy, and Marketing Strategies.....	1
The Regulatory Assistance Project	1
U.S. Partnership for the Decade of Education for Sustainable Development.....	1
University of Michigan	9
Upper Peninsula Power Company	1
Urban Options.....	1
Washtenaw County	2
We Energies	4
Weston Solutions, Inc.	1
Whirlpool Corporation.....	1
White Pine Electric Power LLC.....	1
Whitecase	1
William J. Celio Consulting LLC	1
Wisconsin Public Service Corporation	5
Wolverine Power Supply Cooperative, Inc.....	5
WPS Energy Services, Inc.	1
Total Participants	351