



August 26, 2015

**Luke Harms, Whirlpool Corporation  
Testimony before the Senate Energy and Technology Committee**

Dear Chairman Nofs and Members of the Committee:

For the record, my name is Luke Harms, Senior Manager in Government Relations at Whirlpool Corporation.

Today I am testifying on behalf of Whirlpool Corporation and four other large businesses – Johnson Controls, United Technologies, Ingersoll Rand, and Schneider Electric. We appreciate the opportunity to offer these comments.

Our companies have a long and successful history of doing business in Michigan and providing solutions for consumers and businesses to save money on their utility bills. Altogether, our five companies have a dedicated and loyal workforce of approximately 15,000 employees in the state.

At Whirlpool in particular we're very proud not only to be the world's largest home appliance company, but also to have over 4,000 employees and contractors at our global headquarters and technology centers in Benton Harbor and Saint Joseph.

**As a group of manufacturers and service providers with a significant Michigan presence, we applaud Michigan's leadership in advancing energy efficiency through the successful Energy Optimization Standard.** As large employers and major energy consumers, we understand firsthand how energy policies affect the cost of doing business. We also recognize that all Michigan consumers and businesses benefit when we reduce energy waste. Under the Energy Optimization Standard, energy saving programs have exceeded their goals every single year and are creating \$3.75 in economic benefits for every dollar spent.<sup>1</sup> Energy efficiency programs are the lowest-cost energy resources available, costing three times less than other options.<sup>2</sup> By continuing to invest in energy efficiency, we can reduce total energy costs for all Michigan customers; mitigate fuel and electricity price increases; and build a more affordable, reliable electricity system.

**For these reasons we strongly support Governor Snyder's goal to reduce energy waste by at least 15% over the next 10 years. We are also committed to working with this Committee to find a legislative approach that will help achieve this outcome.** Governor Snyder's goal would require Michigan to achieve about 1.5% energy

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<sup>1</sup> Michigan Public Service Commission, "2014 Report on the Implementation of P.A. 295 Utility Energy Optimization Programs In Compliance with Public Act 295 of 2008," November 26, 2014.

<sup>2</sup> Michigan Public Service Commission, "Report on the Implementation of the P.A. 295 Renewable Energy Standard and the Cost-Effectiveness of the Energy Standards," February 13, 2015. The Commission reports that energy efficiency costs 2 cents/kWh, while the cost of electric supply is 6.4 cents/kWh overall.



savings per year. We want to emphasize that this goal represents a level of energy savings that is greater than the 1% savings level required by the current Energy Optimization Standard.

**Based on our careful analysis of the bills as introduced, we are concerned that Senate Bills 437 and 438 will not be able to meet the Governor's energy vision.** We believe that these bills require substantial revisions to ensure that Michigan will not only maintain its current level of energy waste reduction, but will also increase energy savings to meet the Governor's increased goal.

We are very encouraged to hear that members of this Committee are open to substantial revisions to both bills. Our companies welcome this opportunity and stand ready to work with you. With this in mind, we would like to provide some initial feedback on the proposed legislation and some suggestions on legislative provisions that would be effective at achieving the Governor's goal.

**There are two main issues that need to be addressed to achieve the Governor's 15% energy waste reduction goal:**

1. First, Michigan already has a successful framework for achieving energy waste reduction through the Energy Optimization Standard. Under the Standard, energy saving actions are already required to compete head-to-head with other options and demonstrate their cost-effectiveness.<sup>3</sup> **Rather than jettison this proven approach, we support the continuation of the Energy Optimization Standard.** Roughly speaking, the continuation of the Energy Optimization Standard should achieve the first 10% of the Governor's 15% goal.

Notably, many states have been able to achieve energy waste reduction equal to or greater than the Governor's goals. However, no state has ever done so without a policy like the Energy Optimization Standard.<sup>4</sup> In fact, states with energy efficiency standards are nearly four times more effective at reducing energy waste than those without one.<sup>5</sup>

2. Second, we know there are additional energy waste reduction opportunities above and beyond what the current Energy Optimization Standard delivers. These opportunities are also less expensive than other energy options. **We support a strengthened Integrated Resource Planning (IRP) process — which would supplement the savings achieved by the existing Energy Optimization Standard — to identify and achieve these additional energy waste reductions.** An effective IRP process, as a supplement to the existing Standard, would deliver the remaining portion of the 15% goal. Later on I will describe the necessary requirements of an effective IRP process.

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<sup>3</sup> We acknowledge that certain low-income measures are not required to pass cost-effectiveness criteria, but are included in Energy Optimization portfolios to meet other policy goals.

<sup>4</sup> American Council for an Energy Efficient Economy, "The 2014 State Energy Efficiency Scorecard," October 22, 2014.

<sup>5</sup> American Council for an Energy Efficient Economy "IRP vs. EERS: There's one clear winner among state energy efficiency policies," December 16, 2015.



To summarize briefly: We think the best pathway forward is first, to maintain the successful Energy Optimization Standard – a step that requires no legislative action – and second, to complement the Energy Optimization Standard with a strong IRP process. For the remainder of my testimony I would like to provide some additional details on these two strategies.

### **Michigan’s Energy Optimization Standard**

I will now provide a few examples of the positive economic impacts that the Energy Optimization Standard has provided, why we think it is beneficial to Michigan, and why it should be continued.

**First, Energy Optimization helps large commercial and industrial facilities reduce their energy costs so that they can compete on an international scale.** A few years ago Whirlpool made a \$155 million commitment to renovate existing facilities and build our new North American Headquarters and Refrigeration Technology Center in Michigan. When we made this investment, we committed to making these facilities as energy efficient as possible. We made this commitment because the purchase and use of high efficiency products are key business tactics to reduce operational costs through reduced energy consumption. Even small achievements in operational efficiency can result in significant positive improvements in a business’ performance and competitiveness.

As global companies, we understand that there are a lot of potential investment opportunities around the world, but only limited capital resources available. In the context of tight return on investment criteria and internal competition for capital, Energy Optimization programs often make the difference in a business’ decision to invest in energy efficient products and systems versus other competing opportunities. The Energy Optimization programs give us greater ability to make those investments here in the state of Michigan, rather than in another state or country.

Additionally, these investments provide benefits beyond the individual facilities where improvements are implemented. Ultimately they help to reduce operating costs for all Michigan businesses. That’s because eliminating energy waste through Energy Optimization is one-third the cost of other energy options.<sup>6</sup> We recognize that electricity bills will be higher for our businesses and all Michigan consumers if other energy resources are pursued instead of Energy Optimization. A robust multi-year Energy Optimization Standard gives companies like ours confidence that policymakers are committed to keeping energy costs affordable and that Michigan will be a good place to do business for years to come.

**Second, Energy Optimization programs support products and services that create many direct and indirect jobs throughout Michigan, while providing the market and regulatory certainty manufacturers need to make long-term investments.** At Whirlpool, we’ve always been focused on providing energy efficient

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<sup>6</sup> Michigan Public Service Commission, “Report on the Implementation of the P.A. 295 Renewable Energy Standard and the Cost-Effectiveness of the Energy Standards,” February 13, 2015. The Commission reports that energy efficiency costs 2 cents/kWh, while the cost of electric supply is 6.4 cents/kWh overall.



solutions. Through the hard work of our engineers at our Global Headquarters in Benton Harbor, we've been able to develop products that deliver the performance and features that consumers expect, while eliminating energy waste and saving customers money. For example, a washing machine today uses 77% less energy than it did in 2000. Similarly a refrigerator today uses as much energy as a 60-watt light bulb. We see great potential for more innovation going forward. For instance, we think our new heat-pump dryers and connected appliances could save consumers billions of dollars in energy costs.

It is policies like the Energy Optimization Standard that provide the regulatory and market certainty that our companies need to make investment decisions and long-term plans for our Michigan workforce so that we can focus on developing innovative energy-saving products. Repealing the Standard would introduce uncertainties regarding the Michigan market, our long-term investment decisions, and our ability to develop new products.

It is also important to understand that the positive economic impacts of energy efficiency programs stretch well beyond the manufacturer and the end user. For example, with our efficient appliances, the product distribution network relies on local businesses – in the form of regional distributors and local contractors – for delivering, installing and maintaining our products. These jobs cannot be outsourced. Any programs that assist in prompting investments in energy efficient appliances also stimulate economic growth for these local businesses.

**Third, Energy Optimization programs support services that directly benefit businesses and local communities across the state.** As a further example of the economic benefits that energy efficiency programs provide, we can take a closer look at one mechanism for delivering energy efficiency services: performance contracting. Several of our companies are engaged in providing energy savings performance contracts (ESPC) to help Michigan businesses and communities eliminate energy waste. This is a contracting vehicle where an Energy Services Company (ESCO) will develop a comprehensive energy efficiency project and is willing to provide a financial guarantee that the savings will occur. Over the years that our businesses have provided these services in Michigan, our public sector clients have received incentives to pursue energy saving contracts. Notably, these projects have resulted in hundreds of millions of dollars in total investment activities in communities across the state. Johnson Controls, for example has developed and guaranteed over 130 such comprehensive energy efficiency projects in Michigan totaling over \$160 million.

These programs use existing operating dollars and through energy efficiency, provide investment into public facilities. They create local jobs, leverage Michigan-made efficiency products, and reduce the need to tax the public for facility upgrades. These projects can typically save 20% or more of the overall energy budget for an entire school district, municipality, college, or hospital.

The key point here is that the energy efficiency programs offered as a result of the Energy Optimization Standard play a significant role in building the economic case for a performance contract.

**For all these reasons, we believe continued support for Energy Optimization is beneficial for Michigan residents and businesses.** We recognize that this is a critical time for Michigan's energy future as the state



faces new environmental regulations, expected capacity shortfalls, and other major challenges. We are encouraged by the general agreement from leaders in this Committee and the Governor's Office that energy efficiency has an important role to play in this future. However, we are concerned that Senate Bills 437 and 438 do not include a continuation of the Energy Optimization Standard, or any similar long-term commitment to energy savings targets. Discontinuing the Energy Optimization Standard, or replacing it with an unproven alternative, puts Michigan government, residents and businesses at significant risk of higher energy costs and supply shortages in the future.

**In addition to the overall waste reduction targets embodied by the Standard, there are also several key components of the Energy Optimization framework that are not present in either Senate Bill.** For example, these bills discontinue the current process for planning, approving, and funding energy waste reduction efforts. While Senate Bill 437 addresses these elements for power plants, Power Purchase Agreements, and other investments, it does not explicitly do so for investments in demand-side resources. We recommend that these elements be added to Senate Bill 437, or retained as they are in the current law (and not repealed as proposed in Senate Bill 438). These steps are necessary regardless of the overarching policy framework that is pursued.

**Finally while we strongly support keeping the current Energy Optimization framework intact, there are certain aspects of the current law that would benefit from revision.** One example is the current spending cap on Energy Optimization programs. The current law places artificial restrictions on the level of investment in cost-effective energy waste reduction efforts that can be pursued. This does not appear to be a significant problem yet, since the spending cap has not significantly limited investments to date. However, it could become a problem in the near future. Limiting investments in the least cost energy resource would force Michigan to purchase more expensive options that would increase utility bills. Eliminating this artificial restriction would ensure that Michigan does not miss out on any cost-effective saving opportunities in the future.

### **Effective Integrated Resource Planning**

I will now turn my attention to the role of Integrated Resource Planning – or IRP – in reducing energy waste and ensuring lower utility bills for Michigan businesses and consumers.

**The first point that I would like to stress is that we do not see Integrated Resource Planning as an adequate or complete replacement for the Energy Optimization Standard.** To explain our position, here are a few facts about IRPs and Energy Optimization Standards that have been experienced and documented:

1. Standards are much more effective at delivering cost-effective energy savings than IRPs.<sup>7</sup>
2. The only states achieving more than 1% annual energy savings have Standards in place.<sup>8</sup> Meanwhile, Governor Snyder's goal requires more than 1% annual energy savings.

<sup>7</sup> Source: ACEEE, <http://www.aceee.org/blog/2014/12/irp-vs-eers-there-s-one-clear-winner->



3. If a Standard sunsets, the level of energy efficiency investment planned in IRPs declines significantly after the sunset date.<sup>9</sup>
4. IRPs frequently over-estimate the costs of energy efficiency, which leads to under-investment in energy efficiency.<sup>10</sup> And,
5. IRPs frequently under-estimate how much energy efficiency can be achieved, which leads to under-investment in cost-effective energy efficiency.

We acknowledge that meeting Michigan's significant energy needs may require novel approaches to increase the level of energy efficiency investment beyond what the current Standard requires. To that end, we think that an effective IRP process is one way to supplement the existing Energy Optimization Standard to drive increased energy savings. However, it is essential that any IRP legislation result in an effective IRP process.

To be clear, implementing an effective IRP process does not require Michigan to repeal or replace the Energy Optimization Standard. As we have noted, the Standard is working very well, and can continue without any legislative action. In fact, we believe that any alternatives being considered can and should only be used to supplement a continued multi-year commitment to the Standard. For example, an IRP process could be layered on top of the existing effective Standard. This approach would ensure that a base-level of benefits from energy efficiency continues to flow to Michigan customers via the Energy Optimization Standard. Meanwhile, additional efforts above and beyond the 1% savings requirement in the Standard could be pursued through an effective IRP process.

**What exactly do we mean by an effective IRP process? In our view, there are five key requirements to ensure effectiveness. The IRP process must:**

1. Operate on a knowable, predictable timeline;
2. Identify all cost-effective energy saving measures available;
3. Require the inclusion of all cost-effective energy savings in IRPs;
4. Require utilities to implement the cost-effective energy saving measures approved in their IRPs; and
5. Build upon the effectiveness of existing processes for planning and implementing demand-side resources.

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<sup>8</sup> Sources: ACEEE 2014 State Energy Efficiency Scorecard; ACEEE defines an EERS as: 1) Setting clear long-term targets for electricity savings. 2) Making clear that targets are mandatory; and 3) Including a funding mechanism sufficient for full implementation of programs necessary to meet targets. Note: ACEEE considers states with all cost-effective requirements to have EERS policies in place once these policies lead to multi-year savings targets. Some states (CA, OH, ID, MT, IN, FL, WY, MS, ND, AL, VA, AK, LA, KS) did not report 2013 savings for the 2014 Scorecard, so ACEEE used 2012 savings values.

<sup>9</sup> For example, after Arizona's EE Standard sunsets in 2020, Arizona Public Service slows investment in EE. (See: Arizona Public Service Company, 2014 Integrated Resource Plan)

<sup>10</sup> For example, in its 2012 IRP, APS estimated that EE would cost \$55/MWh in 2015 (despite actual experience to-date demonstrating much lower costs). In its recent EE plan, APS now projects that EE will cost \$13/MWh in 2015 (an amount 4-times less than its initial projection). Had Arizona's Commission relied on APS' IRP alone to set EE investments levels, APS would have under-invested in EE. See: Arizona Public Service Company, 2012 Integrated Resource Plan, Annual Demand Side Management Reports 2011-2014



While some of these criteria are present in Senate Bill 437 to some extent, several of them are not. I will now describe why each criterion is important and necessary.

*1. The IRP process must operate on a knowable, predictable timeline.*

A knowable and predictable IRP timeline is important because it creates additional certainty and expectation for the business community. Furthermore, it gives all stakeholders an adequate opportunity to participate in the IRP process. Senate Bill 437 calls for a plan to be filed within 2 years, a plan review every 3 years, and updated inputs from the Michigan Public Service Commission every 4 years. In our view this is an acceptable IRP timeline.

*2. The IRP process must identify all cost-effective energy saving measures available.*

In our experience, significant bias in an IRP can occur if the analysis of all cost-effective energy efficiency opportunities is **not** conducted by an impartial third-party. We think Senate Bill 437 is poised to offer this impartiality by designating the Michigan Public Service Commission as the entity responsible for conducting a thorough, independent and unbiased “potential study” of energy saving measures. The legislation should also require that the utilities, in their analyses, treat energy savings measures in an objective and unbiased manner.

*3. The IRP process must require the inclusion of all cost-effective energy savings in IRPs.*

Although Senate Bill 437 requires the Michigan Public Service Commission to conduct an independent assessment of energy efficiency potential, there is no language in the bill that links this study or the results of this study to the IRP process itself. In fact, none of the proposed criteria for the submission or the approval of IRPs requires any specified amount of demand-side resources, or specific criteria to ensure the objective and unbiased inclusion of demand-side resources within a utility IRP, even when those resources are cost-effective.<sup>11</sup>

By definition, “cost effective” energy efficiency resources have out-competed other energy options on a “head to head” basis. If part of this Committee’s goal is to ensure that resources should compete on a level playing field, it needs to ensure that all cost-effective demand-side resources are included in IRPs. Allowing cost-

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<sup>11</sup> Regarding IRP submission, Senate Bill 437 requires plans to include “details regarding the utility’s plan to eliminate energy waste” but does not specify how much energy waste reduction should be planned for, nor does it include objective criteria to ensure that utilities will treat demand-side resources in an unbiased manner. Regarding IRP approval, Senate Bill 437 requires plans to represent “the most reasonable and prudent means of meeting capacity needs relative to other resource options.” Thus, the amount of demand-side resources included depends solely on a subjective determination of what is “most reasonable and prudent.”



effective demand-side resources to be selectively excluded or biased against sets up a non-level playing field that would negatively impact all Michigan businesses and consumers.<sup>12</sup>

To safeguard against these outcomes, we recommend that the IRPs be required to include a base level of demand-side resources that reflect the 1% energy savings in the current Energy Optimization Standard. Additionally, we recommend that the IRPs be approved only if they incorporate all additional demand-side resources, above the 1% savings level, that the Commission's analysis has shown to be cost-effective.

*4. The IRP process must require utilities to implement the energy saving measures approved in their IRPs.*

Even if demand-side resources are planned and included in IRPs, there is no guarantee that the acquisition of these resources will actually take place. In general, experience in other states has shown that demand-side resources included and "approved" in IRPs are pursued only to the extent that there is a specific order from regulators requiring their acquisition. We recommend that Senate Bill 437 be modified to ensure that the Commission will order the acquisition of all cost-effective demand-side resources consistent with approved IRPs.

Additionally, reporting requirements are needed to track the progress of demand-side resource investments to determine whether they are meeting the expectations set forth in approved IRPs. As proposed, the bills do not contain any reporting requirements on the progress of demand-side resources.

*5. The IRP process should build upon existing effective processes for planning and implementing demand-side resources.*

As we have made clear, we strongly support the Energy Optimization Standard. Our companies also support effective IRP processes that would provide supplemental savings on top of the Standard. While we do not support a sunset of the Standard, we realize that others have explored this possibility. If the Energy Optimization Standard must be sunset at some point in the future, we implore the Committee to plan for a seamless transition that will not jeopardize progress to date. Safeguards are needed to make sure the subsequent policy is able to achieve more, not less, cost-effective energy savings. Accordingly, the Standard should only sunset once the alternative policy being proposed (e.g., IRP) has been able to demonstrate achievement of energy waste reduction in Michigan that meets or exceeds Governor Snyder's goal of 1.5%

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<sup>12</sup> This concern is not just hypothetical. In 2013 Indiana & Michigan Power (I&M) submitted an application for a Certificate of Need for a supply-side resource – the Cook Life Cycle Management project. To support its supply-side resource application, the utility included its 2011 IRP, which indicated that demand-side resources were 20% less costly than the supply-side project under consideration. Despite these facts, I&M did not propose any incremental demand-side resources nor did I&M consider demand-side resources as an alternative to the supply-side project. In the end, the more costly resource – the one the utility wanted – was the resource supported and implemented by I&M, while there was no growth in the less-costly demand-side resources.



annual energy savings. This would provide a safeguard to ensure that the new IRP process is effective in reality and does not fall short of meeting the Governor's objectives.

## Conclusion

In conclusion,

- 1. Energy Optimization is the least expensive, most certain option available for achieving Governor Snyder's goal to eliminate energy waste by at least 15%. We urge this Committee to recognize this fact by retaining the Energy Optimization Standard.**

The Standard ensures that Michigan residents and businesses are able to benefit from a minimum-level of investment in the lowest cost energy option – an option that outcompetes other energy resources. Maintaining the Standard does not prevent us from doing more. But without it, we run the risk of doing less. If that happens, Michigan's capacity shortfall will be exacerbated and Michigan consumers and businesses will pay in the form of higher energy bills. Given the success of the Energy Optimization Standard to date, we support its continuation as the lowest cost, lowest risk strategy for meeting the state's energy needs.

- 2. We support a strengthened and effective Integrated Resource Planning (IRP) process to identify and achieve additional cost-effective energy savings for Michigan businesses and consumers — which would supplement the savings achieved by the existing Energy Optimization Standard.**

We know there are additional energy waste reduction opportunities above and beyond what the current 1% annual Energy Optimization Standard delivers. An effective IRP process, as a supplement to the existing Standard, would deliver the remaining portion of the Governor's goal of 15% energy savings over 10 years, or 1.5% savings per year.

Thank you for the opportunity to testify before you today. We look forward to continued engagement on these important issues.

