

## ALLOW MANUFACTURE & SALE OF INCANDESCENT LIGHTBULBS IN MICHIGAN

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**House Bill 4815 (Substitute H-1)**

**Sponsor: Rep. Tom McMillin**

**Committee: Energy and Technology**

**First Analysis (10-12-11)**

**BRIEF SUMMARY:** The bill would allow the continued manufacture, sale, and use of incandescent lightbulbs in the state of Michigan under certain conditions.

**FISCAL IMPACT:** House Bill 4815 would have no significant fiscal impact on the Department of Environmental Quality. The bill may have a fiscal impact on the Department of Licensing and Regulatory Affairs (LARA) by increasing expenditures for the Bureau of Commercial Services, which is charged with "...ensuring compliance with reporting and registration requirements." House Bill 4815 does not specify any enforcement responsibilities pertaining to the manufacture and marketing of incandescent light bulbs that would bear the "Made in Michigan" mark. However, if such a mark was used in a fraudulent or misleading manner, the Bureau of Commercial Services would likely investigate and enforce any violation of applicable Michigan law. Additionally, the Office of Attorney General, Consumer Protection Division, might be fiscally impacted by enforcing the proper use of the "Made in Michigan" mark on incandescent light bulbs.

### **THE APPARENT PROBLEM:**

Incandescent lightbulbs are only 10 percent efficient, meaning that only 10 percent of the energy is used to create light; the remaining 90 percent of energy is converted to heat. Beginning in 2012, the manufacture, sale, and use of incandescent lightbulbs will be phased out under the federal Energy Independence and Security Act of 2007. First to go will be 100-watt bulbs, with 60- and 40-watt bulbs being phased out in subsequent years. Instead of the familiar bulb, consumers will have to choose between CFLs (compact fluorescents), halogen (an energy efficient incandescent bulb), or LED bulbs.

Some see the coming implementation of the federal energy act as a way to decrease electricity consumption, which in turn will decrease the drain on power plants, which will lower the amounts of pollution emitted by coal-burning plants, which will then reduce the negative impact on the environment and decrease the health risks for residents living nearby the plants, which should result in lower health care costs.

Others see the ban on incandescent bulbs as another example of government intruding on personal choice. Some worry about the health effects of forcing CFLs on residents, especially for those with light sensitivities as many report migraines and seizures associated with use of the fluorescent lights. In addition, a broken CFL can release small amounts of mercury and so require rigorous clean up that many consumers may be unaware of, thereby posing a potential for exposure to this toxin. Moreover, CFLs, halogen, and LED bulbs are much more expensive to purchase than the traditional incandescent bulb, thus putting an economic burden on the poor.

Since this is a federal ban, it will be difficult for residents to obtain the older type of incandescent bulbs because the commerce across state lines involving the traditional incandescents would be strictly prohibited. Some believe that one way to get around the interstate commerce issue would be to encourage Michigan companies to manufacture incandescent bulbs exclusively for the sale to and use by Michigan residents in homes and businesses located within the state.

### ***THE CONTENT OF THE BILL:***

**House Bill 4815** would create a new act to specify legislative findings, define terms, and state that an incandescent bulb that was made in Michigan and that remained in the state would not be considered to have entered or substantially to affect interstate commerce, and thus would not be subject to the forthcoming federal ban.

**Legislative findings.** The bill lists several Legislative findings as paraphrased below:

- An incandescent lightbulb manufactured in Michigan without the inclusion of parts imported from outside the state (other than generic or insignificant parts) and that remained in the state has not entered into interstate commerce and thus is not subject to the authority given to Congress to regulate commerce between the states.
- Basic materials, such as unmachined and unshaped steel and glass, are not incandescent lightbulbs in and of themselves and thus are not subject to congressional authority to regulate incandescent lightbulbs in interstate commerce.
- Congressional authority to regulate interstate commerce in basic materials does not include the authority to regulate incandescent lightbulbs manufactured in Michigan from those basic materials.

**Exemption from federal ban.** As evidence that an incandescent lightbulb manufactured in Michigan without parts imported from other states (except for generic or insignificant parts) had not entered or substantially affected interstate commerce, it (1) would have to have remained within Michigan, and (2) have the words "Made in Michigan" clearly stamped, engraved, or otherwise clearly indicated on a central part.

**Definitions.** The bill would define the following terms:

- "Incandescent lightbulb" would mean a lightbulb containing a filament or filaments that produce light when the filament or filaments are heated due to electrical resistance.
- "Generic or insignificant parts" would mean parts that are minor components or have manufacturing or consumer product applications other than the production of incandescent lightbulbs. The term would include, but not be limited to, steel, glass, springs, screws, nuts, pins, and ceramics.
- "Manufactured" would mean created from basic materials for functional usefulness, including, but not limited to, forging, casting, machining, or other processes for working materials.

### ***BACKGROUND INFORMATION:***

Instructions for how to clean up a broken CFL can be found at:

[www.epa.gov](http://www.epa.gov) and typing "broken CFL" in the search box.

Check with your local authorities regarding requirements for proper disposal such as whether to take the broken bulb to a hazardous waste disposal site or to a recycling center.

Information on CFLs and recycling centers can be found at: [www.michiganenergyoptions.org](http://www.michiganenergyoptions.org)

An interactive map of recycling sites around the state can be found at:

<http://www.michiganenergyoptions.org/component/content/article/34-programs/311-cfl-recycling-map>

### **ARGUMENTS:**

#### ***For:***

House Bill 4815 is about choice. Government shouldn't be so intrusive as to control how people can light their homes. State lawmakers can't repeal the federal mandate that will take away the choice to use incandescent bulbs, but this bill will give choice back to residents. Currently no businesses in Michigan make incandescent lightbulbs, but the bill – and consumer demand – may encourage entrepreneurs to set up shop. The bulbs produced by a Michigan company could only be used within the state, but would retain choice for residents and potentially create jobs and boost the state economy.

#### ***For:***

The bill is needed as many people do not like the light emitted by CFLs. They can be slow to start, don't work well with dimmer switches or in recessed lighting, and give off what many consider to be an unpleasant cold, bluish light. In addition, some photosensitive people complain that CFLs trigger migraines and even worse, seizures in people with epilepsy and other seizure disorders. Others are bothered by the noise the bulbs emit.

For others, cost is an issue. Halogens and LEDs, though an alternative to the bothersome CFLs, are pricey compared to traditional incandescents. For low income families needing to replace a lightbulb but struggling to pay the bills today, buying a bulb that will last years may not be an option.

Furthermore, CFLs do not always live up to expectations. Use in colder temperatures shortens the lifespan of a CFL, as does turning it off and on frequently. Yet, leaving the bulb burning when not in use only serves to use more electricity unnecessarily. Worse, the bulbs pose a health and environmental hazard if broken. They contain mercury which even in small exposures can cause neurological disorders in children. However, cleanup of a broken bulb includes such things as having people and pets leave the room, opening windows for at least five to ten minutes, shutting off the forced heating/air conditioning system (for several hours post cleanup), having duct tape or other sticky tape on hand to remove broken glass and powder residue from carpets, and sealable plastic bags to contain the fragments and sticky tape for disposal. Plus, the next several times the carpet is vacuumed, the H&AC system is supposed to be shut off and a window opened in the room before vacuuming and for hours after. This simply is not feasible during much of Michigan weather (winter, hot humid days, rain) or for people who live in high crime areas where it is not safe to leave

windows open. People with physical or cognitive difficulties would find the proper cleaning techniques very difficult, if not impossible to follow properly.

In short, at a time when countries such as Canada are delaying similar bans on incandescents or like Australia are repealing them, House Bill 4815 could provide some relief and greater choice to Michigan residents.

***Response:***

Technology is advancing so rapidly that many of the problems experienced by users of CFLs have already been addressed. For example, some manufacturers have already found a way to overcome some of the aspects of CFLs most bothersome to consumers such as slow start up, inability to dim, and poor color temperature. In addition, prices of CFLs, halogens, and even LEDs are starting to come down, making them much more affordable. Reportedly, some industry engineers feel that the fears regarding mercury are overblown, saying the amount is "miniscule" compared to what is contained in the average amalgam filling (from "Engineering a Light Bulb Revolution", Switchboard (NRDC staff blog dated 9-21-11)).

***Against:***

The bill is not needed as choice already exists for people who feel they cannot tolerate CFLs. The federal law doesn't ban incandescent lightbulbs, just inefficient ones. Incandescents that meet the newer, stringent energy efficiency standards will continue to be sold in the U.S. Halogen bulbs are an example of an incandescent that meets the newer standards. In addition, many find the light emitted by LED bulbs to be more pleasing than CFLs, and though more expensive initially, the bulbs can last a lifetime.

Further, according to "Switchboard," a blog by staff of the Natural Resources Defense Council (NRDC), new incandescents are on their way. In "Intelligent Design: the Little Light Bulb Maker That Could" posted on September 15, 2011, an Ohio company has been working on energy efficient incandescent bulbs. TCP (Technical Consumer Products), a major manufacturer of CFLs, is poised to start production of "a new and improved incandescent that is 50 percent more efficient." Reportedly, the bulb will have the same traditional shape, but use half the watts. According to the author of the blog, for "those fans of Edison's original bulb design, people can stop hoarding."

***Against:***

In a nutshell, House Bill 4815 would allow, even encourage, the manufacture of an outdated product that wastes energy, pollutes the environment, and increases healthcare costs. Simply put, these old incandescent bulbs use more energy to operate. Most of that energy is generated by inefficient coal burning power plants that release mercury into the air. The mercury ends up in soil and water and enters the food chain. Reportedly, one in six Michigan women has elevated mercury levels. Elevated mercury levels in children can lead to developmental delays. Air pollution from coal burning power plants increases the risk for respiratory problems and diseases in children and adults.

On the other hand, decreasing reliance on dirty energy sources – which can happen by encouraging, even mandating, the use of energy-efficient products – is better for the environment and better for the health of Michigan residents. It is also better for the wallet. Though initially more expensive, energy efficient lightbulbs save money. A single CFL can save \$30 or more over its lifetime compared to the incandescent bulbs about to be phased out. Full implementation of the Energy Independence and Security Act is expected to save

Michigan residents more than \$350 million each year (\$85 per household). Add to that figure the savings in reduced illnesses and related health care costs and the benefits to phasing out the use of inefficient lightbulbs are apparent.

Lastly, a recent poll shows that Michigan voters strongly support the use and expansion of energy efficient technologies. A press release dated Sept. 15, 2011, by the Natural Resources Defense Council revealed that "voters strongly support the federal government setting minimum energy efficiency standards for various household products with . . . 64 percent in favor for light bulbs to only 27 against." Sixty-two percent of voters agreed "that switching to more efficient lighting is an effective way to reduce energy waste."

***POSITIONS:***

A representative of Americans for Prosperity testified in support of the bill. (9-13-11)

The Michigan Chamber of Commerce indicated support for the bill. (9-13-11)

The National Federation of Independent Business (NFIB) indicated support for the bill. (9-13-11)

The Michigan Manufacturers Association indicated support for the bill. (9-13-11)

A representative of the Michigan Environmental Council testified in opposition to the bill. (9-13-11)

The Sierra Club opposes the bill. (9-12-11)

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■ This analysis was prepared by nonpartisan House staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.