EXHAUSTING ALL OPTIONS: HOW MICHIGAN CAN USE VEHICLE IDLING LEGISLATION TO COMBAT GLOBAL CLIMATE CHANGE

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ABSTRACT

The piece provides an overview of the harmful effects of vehicle idling and discusses how individual states and Canada have tried to curb idling. These efforts include legislation, public awareness, federal funding and tax incentives. After this, the essay analyzes the policy pros and cons of Michigan's current legislative efforts regarding vehicle idling. Finally, the piece contemplates how Michigan can best solve this problem. With its focus on Michigan, this paper gives other states a blueprint on how to fight global climate change on a micro level. My hope is that, through publication, policymakers will see how anti-idling measures work and how important they can be in lowering carbon dioxide emissions.

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INTRODUCTION

Have you ever exited a large sporting event or concert and witnessed a long line of buses or trucks idling adjacent to the venue? Did you smell the nauseating odor of burning diesel fuel and hear the deafening drone of their engines? Did you wonder what type of impact this activity would have on the environment? If not, you should have. According to the Environmental Protection Agency ("EPA"), in the United States alone, idling heavy-duty trucks consume 960 million gallons of diesel fuel a year[1] and emit approximately 180,000 tons of nitrous oxide, 5,000 tons of particulate matter and 11 million tons of carbon dioxide.[2] Furthermore, personal motor vehicle idling emits approximately 68 billion pounds of carbon dioxide a year.[3] Even if you have not noticed this problem, state and local legislators have. This essay will begin by describing why there is a vehicle idling problem. Next, it will analyze what some government entities have done to combat this problem. Then, it will discuss how Michigan policymakers have addressed vehicle idling with legislation and the practical implications of that

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[1] Andrew Wolman, *Reducing Heavy-Duty Truck Idling: An Energy and Environmental Challenge*, 15 PENN ST. ENVTL. L. REV. 29, 29 (2006) (citing, EPA SmartWay Transport Partnership, http:// www.epa.gov/otaq/smartway/idlingimpacts.htm).

[2] *Id.* (citing, Han Lim, *Study of Exhaust Emissions from Idling Heavy-Duty Diesel Trucks and Commercially Available Idle-Reducing Devices*, EPA (Oct. 2002), *available at* http:// www.epa.gov/otaq/smartway/documents/epaidlingtesting.pdf).

[3] Michael P. Vandenbergh & Anne C. Steinemann, *The Carbon-Neutral Individual*, 82 N.Y.U. L. REV. 1673, 1702 (2007) (citing, Energy Info. Admin., U.S. Dep't of Energy, 2004 Annual Energy Review 340 fig.12.2, *available at*, http:// tonto.eia.doe.gov/FTPROOT/multifuel/038404.pdf. (assuming Canadian passenger vehicle emissions reflect that of Americans)).

legislation. Finally, this essay will suggest how Michigan can adopt an effective idle reduction strategy.

I. OVERVIEW

The impact of vehicle idling can be felt on both a micro and a macro level. At ground level, vehicle idling releases harmful polycyclic aromatic hydrocarbons that lead to health problems including poor prenatal brain development.[4] Additionally, heavy-duty truck idling releases carcinogenic particulate matter,[5] and car exhaust has been linked to increased asthma symptoms in children.[6] On a larger scale, vehicle idling is a contributor to global climate change. "When oil is burned, Carbon and other Green House Gases (GHG) are released into the atmosphere."[7] These GHGs then trap heat in the atmosphere, thus altering climates around the world.[8] According to the U.S. Department of Transportation, transportation GHG emissions make up 28% of the United States' impact on climate change, second only

[4] Claudia Wallis, *Study Links Exposure to Pollution with Lower IQ*, TIME, July 23, 2009, *available at* http://www.time.com/time/health/article/0,8599,1912197,00.html.
[5] Kevin Downing, *Saving Energy, the Environment, and a Good Night's Rest – Oregon's Approach to Truck Idling*, ECOStates, The Journal of the Environmental Council of the State (Winter, 2005), *available at* http://www.westcoastdiesel.org/files/clearinghouse-truck/saving-energy.pdf.
[6] American Academy of Pediatrics Committee on Environmental Health, *Ambient Air Pollution: Health Hazards to Children*. Pediatrics, 2004, 114:1699-707.
[7] Robert Z. Lawrence, *How Good Politics Results in Bad Policy: The Case of Biofuel Mandates*, Center for International Development at Harvard University at 8 (Nov. 2010), *available at* http://ssrn.com/abstract=1724905 (citing IPCC Fourth Assessment Report: Climate Change 2007 (AR4), http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4-_syr.pdf.).
[8] *See Generally* IPPCC Fourth Assessment Report: Climate Change 2007 (AR4), http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf.

to electricity generation (33%).[9] Heavy-duty vehicles and light-duty vehicles establish around 84% of these transportation emissions.[10] Therefore, preventing wasteful idling can impact global climate change in a positive way.

Vehicles idle for a variety of reasons. For example, passenger vehicles idle while stopped at intersections, sitting in traffic and waiting to pick up passengers. Also, vehicles idle to maintain a comfortable cabin temperature by running heat and air conditioning. Many Michigan residents likely idle their car for over 10 minutes before traveling in cold conditions in the belief that the engine needs to "warm up." However, only 30 seconds of idling before driving is long enough to have the engine ready for use.[11] This is because the vast majority of cars now use electronic fuel injection, which allows fuel injectors to stay open longer in cold weather so that driving slowly after 30 seconds of idling efficiently "warms" the engine for proper use.[12] Myths like idling to "warm up" the engine actually cause harm to the engine, the environment, and the vehicle owner's wallet.[13] Excessive idling

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[9] U.S. Department of Transportation, *Transportation's Role in Climate Change*, *available at* http://climate.dot.gov/about/transportations-role/overview.html (Data from 2006).
[10] *Id.*
[11] California Energy Commission: Consumer Energy Center, *Should I Shut Off the Motor When I'm Idling My Car?*, *available at* http://www.consumerenergycenter.org/myths/idling.html.
[12] Richard Backus, *Should I Let My Car Warm Up Each Morning?*, Mother Earth News, Oct. 10, 2008, *available at* http://www.motherearthnews.com/ask-our-experts/car-engine-warm-up.aspx.
[13] Hal Hinkle, Patricia Deacon & Kasia Duda, *Anti-Idling Primer Every Minute Counts*, at 2, *available at* http://www.thehcf.org/antiidlingprimer.html.

damages engine components.[14] Ten seconds of idling can use more fuel than turning off the engine and restarting it.[15] In fact, "for every two minutes a car is idling, it uses about the same amount of fuel it takes to go about one mile."[16] So, even though it may seem intuitive to allow your car to "warm up" on an icy winter morning, the best course of action is to idle for only 30 seconds before slowly beginning to drive.

Heavy-duty trucks, like semi-trucks, idle when workers load and unload cargo. Also, some heavy-duty truck drivers incorrectly believe that idling for extensive periods before or after a trip will increase engine health.[17] However, most diesel engine manufacturers only recommend a warm-up or cool-down period of three to five minutes.[18] Again, false myths about a "warm up" period further perpetuate the idling problem. The most inefficient and harmful form of heavy-duty truck idling is long-duration truck idling. Long-duration idling often occurs at truck stops and rest areas when drivers keep their engine running to maintain cabin heat or air conditioning while resting for significant periods of time.[19]

Vehicle idling policies will reduce emissions and fight global climate change, but how will Michigan legislators sell this policy to citizens? Legislators can do this by framing the issue as a way for citizens to save

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[14] *Id.*
[15] *Id.*
[16] *Should I Shut off the Motor When I'm Idling My Car?*, *supra* note 11.
[17] Wolman, *supra* note 1, at 31.
[18] *Id.*
[19] *Id*.

money, businesses to increase profits and municipalities to efficiently use taxpayer funds. Limiting personal vehicle idling will save citizens money they would normally spend on fuel and engine maintenance. One study assumes that if a person idles for just five minutes a day, they waste between $63 and $134 each year.[20] In the business context, Werner Enterprises improved its fuel miles per gallon by 4.9% by implementing truck idling controls and idle reduction systems along with other fuel optimizing strategies.[21] In the public sector, New York is retrofitting school buses with idling reduction technology to make fleets more fuel efficient and thus decrease the tax dollars needed for future fuel costs.[22]

Even with all of the environmental, health and economic benefits accompanying anti-idling policy, citizens are still apprehensive to legislation. Much like idling myths, if citizens or businesses do not know the transaction costs of idling, it is unreasonable to expect them to operate as rational actors. This market failure can be cured through legislation and government policy that targets vehicle idling, through various strategies, with the goal of motivating drivers to shut off engines. The next section of this essay will

[20] Hinkle, ET AL., *supra* note 13, at 2.
[21] Press Release, Werner Enterprises Reports Improved Earnings Per Share in Third Quarter 2011, Oct. 18, 2011, *available at* http://www.marketwatch.com/story/werner-enterprises-reports-improved-earnings-per-share-in-third-quarter-2011-2011-10-18?reflink=MW_news_stmp.
[22] New York State Clean Air School Bus Program, New York State Energy Research and Development Authority (NYSERDA). *available at* http://www.nyserda.org/funding/1896summary.pdf.

explore how jurisdictions outside of Michigan have attempted to curb vehicle idling and makes suggestions about which method Michigan should adopt.

II. CURRENT ANTI-IDLING EFFORTS

A. Other Jurisdictions

One way Michigan can attack the idling problem is by creating strict penalties for drivers who idle vehicles. Minneapolis has a city ordinance that prohibits commercial diesel trucks from idling for five consecutive minutes in any 60 minute period,[23] and imposes penalties on offenders that include fines up to $700 and 90 days of imprisonment.[24] Putting someone in jail for idling is an extreme deterrent measure. If prevention is the goal, one person imprisoned for idling will quickly send a message about the severity of the problem. However, the public might become so enraged over such a harsh penalty for a seemingly innocuous act that efforts to amend the law seem likely. As discussed in the previous section, some citizens may believe idling is actually good for their engine. In that instance, an offender being sentenced to jail time for a lack of awareness appears to be an excessive punishment. One way that Michigan can create the same deterrent effect without citizen backlash is through expensive fines. An example of this

[23] Diesel Engine Powered Commercial Motor Vehicles, Minneapolis, Minnesota, Code of Ordinances Title 3 Ch. 58 Art. 1 § 58.20.
[24] *Id.* at § 58.70(1).

occurred in Massachusetts where a furniture delivery company was fined $109,120 for allowing its trucks idle for almost 1,000 minutes.[25] Although harsh penalties like those in Minneapolis can be seen as unjust and may be met with citizen resistance, expensive fines might create the desired deterrence without voter pushback.

Another way in which states and cities have addressed vehicle idling is through public education programs. These programs can either inform citizens of the anti-idling laws, or inform them of idling harms, or both. Informing the public is an effective way to quell citizen complaints that the government is forcing them to change their habits because it allows people to see the harms associated with idling and quit on their own. Educating the public will eventually dispel idling myths, and citizens will realize how much money they will save by simply turning off their engines. In Michigan, an "Eco-Driver Program" has been introduced with the goal to reduce Michigan transportation GHGs by 23%.[26] The Program plans on achieving this goal by educating citizens about driving more efficiently. The focus of this education is on changing driving styles, driving patterns and vehicle maintenance in addition to informing the public about the harms of idling.[27] The Michigan Climate Action Plan Report,[28] which suggested the "Eco-Driver Program," has not yet fleshed out how the program will be implemented. Therefore,

[25] Wolman, *supra* note 1, at 46.
[26] Michigan Climate Action Plan (MCAC) Final Report, Ch. 6 page 4, March 2009, *available at* http://www.miclimatechange.us/stakeholder.cfm.
[27] *Id*. at 6.
[28] *See Id*.

Michigan can learn from the steps taken in other states and Canada to educate the public about vehicle idling, and then choose the most effective education form.

A program in Mississauga, Ontario offers a great example of how public education can inform citizens about the harms of idling and ultimately reduces GHG emissions.[29] To quantify the results of their public education campaign, the city measured the idling behavior of 500 cars belonging to parents who picked up and dropped off children at school. Observers reported that after the campaign began, the number of cars idling reduced from 54% to 29%, and the mean duration time of idling was reduced from eight to three and a half minutes.[30] Furthermore, this campaign only cost about $0.08 per resident (U.S. currency).[31] Edmonton, Alberta also had success in changing idling habits through a public education campaign. This campaign focused on city employees and reduced their annual fuel consumption by 10% and annual GHG emissions by 340 tons.[32] Yet, public educations programs have their drawbacks. One complaint is that they are a waste of taxpayer funds. However, the costs of these Canadian studies were quickly recouped through taxpayer fuel savings.[33]

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[29] *See* Michael P. Vandenbergh, ET AL., *Individual Carbon Emissions: The Low-Hanging Fruit*, 53 UCLA L. REV. 1701, 1725 (2008) (citing Lura Consulting, *Towards an Idle-Free Zone in the City of Mississauga*, Final Report 1-5 (2003))
[30] *Id. at 1725.*
[31] *Id*. at 1726.
[32] *Id.* (citing Tansp. Canada, Case Study No. 24, TP14269E, *Fuel Sense: Making Fleet and Transit Operations More Efficient*, 1, 3 (2004).
[33] *Id*. at 1726-1727.

These are dire economic times for many municipalities. Even though localities will recoup tax expenditures through idling education, it can be difficult to find the initial funds to begin an anti-idling campaign. One solution is to have the local government "team up" with a non-profit organization. For example, Philadelphia is working with the Clean Air Council to educate citizens about idling. In one such effort the Clean Air Council directly contacts Philadelphia business owners and invites them to hang anti-idling signs.[34] Additionally, IdleFreePA is a coalition of organizations working to implement a statewide anti-idling education program.[35] Michigan can look to non-profits like NextEnergy or organizations within the Detroit Anti-Idling Working Group[36] to share the cost of starting a similar campaign. Now that evidence has established the success of public education campaigns and various ways to fund them, this article will explore how to successfully execute such a program.

One way a state can implement an anti-idling campaign is through public service announcements ("PSAs"). Michigan can look at how other localities have used PSAs to choose an effective technique. For this discussion, this article will look at PSAs created by the city of Calgary, Alberta and the state of Connecticut to examine the diversity of arguably effective PSAs. Idle Free Calgary's commercial was created to shock the

[34] Clean Air Council, IdleFreePhilly.org Campaign, *available at* http://www.cleanair.org/program/transportation/anti_idling.
[35] *Id.*
[36] Working Group members include: NextEnergy, SDEV, EMEAC, SEMCOG, CEC, etc.

viewer and to make the point astonishingly clear that vehicle idling is harmful to the planet.[37] The commercial begins by showing a man wearing a suit standing on his front porch starting his day. Then, he begins to urinate off the porch. Next, the camera pans throughout a busy city and continues to show other individuals urinating in public places as if this were an acceptable part of everyday life. Finally, the commercial ends by passively informing the viewer that, "When we idle our vehicles, we are basically saying 'piss on the planet.'" Conversely, the Connecticut PSA is a four and a half minute parody of the Discovery Channel television show, "Mythbusters."[38] This PSA, called "Wastebusters," seeks to inform viewers of Connecticut's anti-idling law, as well as dispel vehicle idling myths. By capitalizing on a popular television format, Connecticut's PSA is effective in informing viewers of idling harms and how drivers can save money by simply turning off their engine. Each PSA conveys that idling is harmful to the environment, but Connecticut's approach would be best for Michigan. While Connecticut's PSA may not be as attention grabbing as Calgary's, it is more informative and less crass.

Another strategy for implementing a public education program is through an award system. Award systems are positive incentives that

[37] Commercial available at http://www.youtube.com/watch?v=6QPnS9Uhx8I&list=PLB8B287FE83BDEC82&index=1&feature=plpp_video.
[38] PSA available at http://www.youtube.com/watch?v=BnpLUitvhFQ&feature=BFa&list=PLB8B287FE83BDEC82&lf=plpp_video.

influence anti-idling behavior, in contrast to negative incentives like issuing citations that carry penalties like fines. Aspen, Colorado, currently hopes to induce anti-idling behavior through an award program. As part of its "Idling Isn't Cool" campaign, Aspen city officials in the Environmental Health Department hand out cards to citizens they see idling. But these cards are not citations. They are vouchers that can be returned to the Environmental Health Department for a free cookie.[39] This method seems intuitively counterproductive if the goal is to prevent idling because it looks as though authorities are rewarding citizens for bad behavior and encouraging drivers to travel across town to claim their cookie rewards. However, if the goal is to educate the public about idling, then this strategy could be successful. For instance, in order to receive the cookie, idlers must read the voucher and go to the Environment Health Department where they learn about the harmful effects of idling. After this, citizens will hopefully think twice before idling in the future.

Another award system is being used in the Virginia, Maryland, and Washington, D.C. metro area. The "Turn Your Engine Off, Driver Recognition Program," attempts to "recognize diesel motorcoach and truck drivers who exemplify 'Idling Reduction Ambassador' behavior."[40] To be eligible for the award, a bus or truck driver can either be nominated by his

[39] Abigail Eagye, *New Signs a Bad Sign for Idling Cars*, THE ASPEN TIMES, Aug. 9, 2006, *available at* http://www.aspentimes.com/article/20060809/NEWS/108090042.
[40] Information available at http://www.turnyourengineoff.org/campaign_recognition.html.

or her employer or the general public, or can be selected by enforcement personnel that witness idle reduction behavior.[41] Drivers exemplifying idle reduction behavior will receive a personalized government commendation and will be entered into a monthly drawing to win dinner for two at a restaurant of their choice in the Washington/Baltimore metropolitan region.[42] Positive incentives might be more effective than deterrent measures because drivers may be extra motivated to change idling habits with the possibility of an award rather than the fear of being issued a ticket. Furthermore, it might be more politically feasible to garner public support for an award system than an anti-idling mandate. If Michigan were to use an award system, the Washington system would be most effective because it awards drivers for good behavior rather than giving polluters free cookies in hopes that they will not idle in the future.[43]

Emissions from vehicle idling can also be limited when states use federal funding to support the implementation of idle reduction technology. Professional truck drivers complain that anti-idling mandates, like the one in Minneapolis, conflict with trucking regulations requiring drivers to have eight hours of uninterrupted sleep because without idling they are forced to wake up every hour to fire-up their engine and regulate the cabin temperature.[44] Engine modifications and electrified parking spaces ("EPS") are the only two

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[41] *Id*.
[42] *Id.*
[43] *Compare* Eagye, *supra* note 39 (describing the Aspen free cookie campaign).
[44] *Anti-Idling Laws: Aren't Truckers Human Too?*, Dec. 19, 2004, *available at* http://www.thetruckersreport.com/anti-idling-laws-arent-truckers-human-too/.

types of EPA verified anti-idling technologies that can be used to fix these trucker complaints. Below are some examples of how states have used federal funding to help private entities purchase and install these technologies.

Engine modifications, like the auxiliary power units ("APU") provided by Pony Pack, Inc. provide a solution.[45] Drivers can use APUs for heating, cooling and battery recharging in the truck's cabin while the engine is turned off.[46] This alleviates the need to idle engines during mandated rest periods. Along with environmental benefits, one study shows annual fuel savings of $762,470 with the implementation of this anti-idling technology.[47] However, these modifications can cost between $7,000 and $12,000 per truck.[48] Therefore, the cost of retrofitting an entire fleet is a significant barrier to widespread implementation. This is where federal funding becomes essential to fix the market failure. Recently, the EPA awarded $2 million to the Wisconsin Department of Commerce to reduce heavy-duty diesel truck idling.[49] Wisconsin will use this funding as an incentive for trucking

[45] Information available at http://www.ponypack.com/specifications.shtml.
[46] Press Release, Awards 139 Diesel Truck Idling Grants, Apr. 25, 2008, *available at* http://www.wisbusiness.com/index.iml?Article=124528.
[47] *Investigating the Cost, Liability, and Reliability, of Anti-Idling Equipment for Trucks – Project Objectives and Methods*, Center for Energy and Environmental Policy, UNIV. OF DEL., June 21, 2010, *available at* http://www.nwfpa.org/nwfpa.info/component/content/article/231-investigating-the-cost-liability-and-reliability-of-anti-idling-equipment-for-trucks?start=1.
[48] *Id.*
[49] Press Release, U.S. EPA's Region 5 Awards More Than $2 Million in Recovery Act Funding to Wisconsin Department of Commerce to Reduce Diesel Emissions and Create Jobs, July 21, 2009, *available at*

companies to buy engine modifications like APUs. By providing a 50% reimbursement to trucking companies for the cost of buying and installing APUs, states can makes it cost effective for businesses to adopt this technology. Wisconsin is a great example of how both corporate and environmental interests can be benefited through quality public policy.

Connecticut has also used federal funds as an incentive to install electrified parking spaces to solve the long-duration truck idling dilemma. A common type of EPS allows trucks to connect to an external power source to run heaters and air conditioners without having to idle their engines during mandated rest periods.[50] The Connecticut funds were provided by the American Recovery and Reinvestment Act of 2009.[51] The goal of the Connecticut plan is the same as Wisconsin's, but Wisconsin's method is more efficient. Both will reduce idling emissions, but Wisconsin's will reduce emissions from all trucks retrofitted with engine modifications while Connecticut's only reduces emissions from trucks that use the EPSs. Therefore, with Wisconsin's method, idling emissions are lowered in areas without EPSs. Although using federal funds for idle reduction technology is generally positive, without policy consensus, problems may arise. When

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http://yosemite.epa.gov/opa/admpress.nsf/0/401f7805ac4b0d4b852575fa0060e6bd?OpenDocument.

[50] *Investigating the Cost, Liability, and Reliability, of Anti-Idling Equipment for Trucks – Project Objectives and Methods*, *supra* note 42.

[51] CT Governor Rell: Connecticut Getting $1.73 Million from Stimulus for Projects to Reduce Diesel Emissions, Mar. 22, 2009, *available at* http://www.allamericanpatriots.com/connecticut/48750856-ct-governor-rell-connecticut-getting-173-million-stimulus-projects-reduce-diese.

some states choose to fund APUs and others choose to fund EPSs, trucking companies have a disincentive to bear some of the costs of installing APUs because private trucking companies would rather use EPSs than spend capital and time installing APUs. So with the current split in policies, trucking companies are motivated to use the less efficient technology. This is why Michigan needs to be a leader and only the use federal funds for engine modifications over electrified parking spaces.

States can also use federal funding to retrofit diesel trucks with particulate air filters.[52] Although these projects do not directly address idling, retrofitting diesel trucks with filters will alleviate the same environmental and health problems that result from idling.[53] An example of this retrofitting is found in California. In January 2009, the EPA gave the South Coast Air Quality Management District a $1 million grant to retrofit 700 heavy-duty diesel trucks with particulate air filters.[54] Connecticut is also using federal funding for a similar project.[55] Yet, a collective action problem is created when states use federal funds to retrofit private trucking fleets. If one state solicits federal funds to retrofit trucking fleets, it is using federal money to aid trucking companies that potentially travel through different states. Therefore, this state could be wasting funds on projects that do not

[52] *See* West Coast Collaborative, Retrofit 700 Heavy-Duty Diesel Trucks with DPF's, *available at* http://westcoastcollaborative.org/files/news/TruckRetrofitSC-DERA-Regional-08.Final.pdf.
[53] *See Id.*
[54] *Id.*
[55] CT Governor Rell: Connecticut Getting $1.73 Million from Stimulus for Projects to Reduce Diesel Emissions, *supra* note 46.

directly help its citizens. As a result, voters may be reluctant to support such programs. California has one solution to this problem. Their program will only retrofit trucks that move goods throughout the Los Angeles area.[56] Nonetheless, if the goal is to limit global climate change, retrofitting trucks traveling through different states will benefit everyone and should receive voter support.

Tax incentives can also be used to reduce vehicle idling. For example, Colorado has made income tax credits available for vehicles registered in the state that have qualified idle reduction technologies installed.[57] In addition, Georgia provides a tax credit to those who install "diesel particulate emissions reduction technology" at truck stops.[58] Georgia's tax credit will motivate truck stop owners to buy and install electrified parking spaces without federal funding. Finally, Oregon has passed a Business Energy Tax Credit which provides a tax credit to any Oregon business that invests in efficient truck technology projects, including idle reduction equipment.[59] After exploring the pros and cons of what other jurisdictions have done to combat vehicle idling, we now need to see what efforts Michigan has already made to attack this problem.

[56] West Coast Collaborative, *supra* note 47.
[57] COLO. REV. STAT. § 39-22-516.
[58] GA. CODE ANN. § 48-7-40.19.
[59] HB 3672 (Or. 2011).

B. Michigan

On November 10, 2011, Senate Bill No. 819 was introduced and referred to the Committee on Transportation.[60] If passed, Michigan will prohibit diesel and gasoline fueled vehicles weighing over 8,500 pounds[61] to idle "for more than five total minutes in any 60-minute period . . . ."[62] Violators "may be ordered to pay a fine of not more than $500 . . . ."[63] Furthermore, any owner of a "Load/Unload Location" who idles a vehicle over 8,500 pounds for more than 30 total minutes while waiting to load or unload at that location will violate the law.[64] Owners of these Load/Unload facilities may be issued a fine of "not more than $150 . . . ."[65]

The Bill also allows for exceptions. Vehicles forced to remain motionless in traffic and emergency vehicles will not be issued idling tickets.[66] Furthermore, vehicles idling for work-related operations, like cement mixing or security, or idling for maintenance or repair are free from sanctions.[67] Additionally, there is an exception for the operation of a "defroster, heater, or air conditioner . . . solely to prevent a safety or health emergency and not as part of the operator's rest or sleep period."[68] But this

[60] SB 819 (Mich. 2011) (Amending MICH. COMP. LAWS § 257.605 – .909).
[61] *Id.* at § 674B(C)(iii).
[62] *Id.* at § 674B(2).
[63] *Id.* at § 674B(6).
[64] *Id.* at § 674B(4).
[65] SB 819 at § 674B(6).
[66] *Id.* at § 674B(3)(A), (C).
[67] *Id.* at § 674B(3)(G), (E).
[68] *Id.* at § 674B(3)(B).

is followed by an exemption for the use of "mobile idle reduction technology," such as "auxiliary power units."[69] Finally, the proposed legislation clarifies that it "preempts a local ordinance that would extend, revise, or conflict" with it, but allows localities to "adopt an ordinance that substantially corresponds with this section."[70]

This Bill has some benefits, but it is not the best way to cure the problems associated with vehicle idling. The first positive aspect is that it has an expensive fine that will surely deter drivers. Yet, it is unlikely that the expense will match that of Massachusetts because this Bill only allows for one citation in a 24-hour period.[71] Another positive about Michigan's proposed statute is that it holds both drivers and the owners of loading/unloading locations liable.[72] This strategy will work to efficiently minimize the idling problem by putting pressure on two important aspects of the shipping process. Drivers will be influenced to shut off their engines while loading/unloading cargo to avoid fines and facility owners will be motivated to have efficient loading/unloading procedures to prevent being fined. Also, the exception for idle reduction technology may incentivize trucking companies to buy and install these devices because of their cost-effectiveness.[73] Finally, the Michigan legislation makes clear that any conflicting local ordinances will be subordinate to this act, but allows for

[69] *Id.* at § 674B(5).
[70] *Id.* at § 674B(7).
[71] SB 819 at § 605(3).
[72] *See Id.* at § 674B(4)
[73] *See Id.* at § 674B(5).

municipalities to adopt corresponding legislation.[74] This provision clears up any issues of conflicting local laws and seeks to provide a uniform standard that drivers can rely on. However, the vague "substantially corresponds" language diminishes the state's goal of having a considerably uniform anti-idling law.

One significant problem with the proposed Michigan legislation is that it only focuses on vehicles weighing over 8,500 pounds.[75] Vehicles weighing over this threshold can include pickup trucks, SUVs and large vans.[76] However, the wording of the statute seems to focus on heavy-duty trucks by specifically prohibiting idling at loading/unloading locations, disallowing idling during "the operator's rest or sleep period,"[77] and including an exception for technology that reduces long-duration heavy-duty truck idling. With its weight threshold telling officers to look at some passenger vehicles, but the rest or the statute focusing on heavy-duty trucks, some ambiguities in enforcement may ensue. Besides this potential problem, the Michigan Bill also misses the mark on another large source of emissions by failing to address all passenger vehicles.

In addition to the state as a whole, several cities have proposed or enacted ordinances addressing idling. On December 22, 2009, the City of Detroit passed an ordinance to amend Chapter 55 of the 1984 Detroit City

[74] *Id.* at § 674B(7).
[75] *See Id.* at § 674B(4).
[76] Stacy C. Davis & Lorena F. Truett, *Investigation of Class 2b Trucks (Vehicles of 8,500 to 10,000 lbs GVWR)*, Oak Ridge National Laboratory at vii (2002).
[77] SB 819 at § 674B(3)(B).

Code Article VI by adding Division 5, "Idling Prohibition for Commercial Vehicles Exceeding Gross Vehicle Weight Rating of 8,500 Pounds."[78] This ordinance applies to both diesel fueled and non-diesel fueled "commercial vehicles" with a vehicle weight exceeding 8,500 pounds.[79] Under the ordinance, commercial vehicles are not allowed to idle for more than five consecutive minutes per 60 minute period.[80] First time offenders receive a warning. Second and subsequent violations result in a $150 fine to the operator and/or a $500 fine to the registered owner.[81] In one 60 minute period, up to three citations may be issued. In a subsequent continuous 60 minute period, four citations may be issued; and in any subsequent continuous 60 minute period, up to nine citations may be issued.[82] Exceptions include traffic conditions, emergency vehicles, necessary for work-related operations, if temperatures are below 25 degrees Fahrenheit, and hybrid or electric vehicles.[83]

The Detroit ordinance has benefits similar to Michigan's proposed Bill and some aspects that improve upon it. Detroit's ordinance diverges from Michigan's in its inclusion of only "commercial" vehicles that exceed a heavy weight threshold.[84] Therefore, using the word "commercial" explicitly excludes passenger vehicles like pickup trucks and SUVs, which cures some

[78] Ch. 55 of the 1984 Detroit City Code § 55-6-91.
[79] *Id.*
[80] *Id*. at § 55-6-92.
[81] *Id.* at § 55-6-94(a)(1)-(2).
[82] *Id.* at § 55-6-94(a)(3).
[83] *Id.* at § 55-6-93 (a)–(j).
[84] Ch. 55 of the 1984 Detroit City Code § 55-6-91.

of the ambiguities in the Michigan law. However, the term "commercial" itself is vague and can lead to further enforcement problems. A benefit to the ordinance is that there are exceptions for hybrid and electric vehicle idling.[85] This exception might influence companies to pay for hybrid or electric fleets in order to prevent the costs of excessive idling citations. Also, this ordinance allows for an increasing number of tickets that can be issued when a commercial vehicle idles for a continuous period of time.[86] Analogous to what happened in Massachusetts,[87] this ordinance allows for a harsh penalty and consequently has a greater deterrent effect than Michigan's proposed legislation. Conversely, Detroit will likely face the lack of enforcement problem experienced in other large cities. For instance, Chicago has had an anti-idling ordinance on the books for four years, but has only issued 34 tickets.[88] If unenforced, the deterrent effect is useless. Additionally, creating an exception for cold weather is a wasteful capitulation to vehicle idling myths.[89] Nonetheless, an exception for extreme cold might be reasonable if limited to allow idling to avoid excruciating driver discomfort. Such an exception could be useful to address voter uneasiness about driver comfort and foster greater acceptance of anti-idling mandates.

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[85] *Id.* at § 55-6-93 (a)–(j).
[86] *Id.* at at § 55-6-94(a)(3).
[87] Wolman, *supra* note 1, at 46 (*see also* note 23).
[88] Michael Hawthorne, *Lots of Smoke, Noise – But Not Much Action on Diesel Engine Idling*, CHICAGO TRIBUNE, Nov. 21, 2010. *See also* Courtney Gross, *City's Idling Engines Remain A Problem*, NY1, July 8, 2011.
[89] *Should I Shut Off the Motor When I'm Idling My Car?*, *supra* note 11.

Ann Arbor has also proposed an anti-idling ordinance. On December 3, 2010, a draft city ordinance was introduced to add Chapter 71 to Title VI of the City Code of Ann Arbor.[90] The goal behind this legislation is to create higher air quality standards by limiting idling for all vehicles, including passenger vehicles. It points out that, even though passenger vehicles run cleaner than most vehicles weighing over 8,500 lbs., there are many more passenger vehicles on the road and thus they have a large impact on air quality.[91] The proposal also dispels idling myths. For example, some people believe stopping and starting an engine is actually more harmful to the environment than idling.[92] Ann Arbor's ordinance addresses this myth and explains that the cleanest way to drive a vehicle at cold temperatures is to start the engine and only allow it to run for 30 seconds before beginning to drive it slowly.[93] This is the quickest method to allow the catalytic converter to heat up. Allowing the engine to idle longer prevents the converter from working properly.[94] The draft ordinance plans to authorize the issuance of a $100 fine to the driver of a passenger vehicle and a $500 citation to the driver of a commercial vehicle that idles for more than five minutes in any 60 minute period.[95] Also, a $500 fine will be assessed to the owner of a loading/unloading facility that allows a vehicle to idle for more than five

[90] Proposed City Ordinance, Art. VI Ch. 71, *Idling Reduction*, Dec. 3, 2010, *available at* http://annarborchronicle.com/wp-content/uploads/2011/08/whitepaper-idling-ord.pdf.
[91] *Id.* at 5-6.
[92] Hinkel, ET AL., *supra* note 13, at 3.
[93] Proposed City Ordnance, Art. VI Ch. 71, at 6
[94] *Id.*
[95] *Id.* at 12-14.

minutes.[96] Notable exceptions that differ from other Michigan statutes include idling "if necessary" to operate defrosters, heaters or air conditioners and idling necessary to keep truck cabins comfortable during legally mandated rest periods.[97]

The main benefit of Ann Arbor's draft ordinance is that it states the goal of alleviating health and climate change problems by reducing vehicle idling.[98] By focusing attention on all vehicles, this ordinance allows the city to effectively achieve its objective. Further, it explains and displaces idling myths.[99] Through this focused approach, Ann Arbor politicians can adequately discuss idling with their constituents and will likely gain their support. In addition, the Ann Arbor draft ordinance, like the Michigan Bill, attacks the problem in two contexts.[100]

Although the concerns of truckers are met because the proposed ordinance allows them to idle during mandated rest periods, this exception detracts from the overall goal by creating a disincentive for trucking companies to adopt anti-idling technology.[101] Also, if truckers are exempt from the statute for long-duration idling, this could effectively cancel out the benefits of limiting all vehicle idling because heavy-duty truck idling has many more harmful health and environmental effects than passenger vehicle

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[96] *Id.* at 14.
[97] *Id.* at 13-14.
[98] *See Id*. at 1.
[99] *See* Proposed City Ordinance, Art. VI Ch. 71, at 6.
[100] *Id.* at 14.
[101] *See Id.* at 13-14.

idling.[102] Another significant detraction is that it allows individuals to idle their vehicles for heat and air conditioning without specifying at which temperatures this exception will apply.[103] As a result, people can argue it was "necessary" to idle under the circumstances at a myriad of different temperatures. Still, similar to the Detroit ordinance, this proposal appears to be a comfort concession aimed to appease voters.

The proposed legislation and city ordinances discussed above are a good start for Michigan. However, this state must also consider what other jurisdictions have done to address the idling problem. The next section of this essay will suggest how Michigan can adopt a combination of the best policies already discussed so that lawmakers can effectuate the best policy to combat idling.

III. WHAT SHOULD MICHIGAN DO?

In order for Michigan to reduce idling emissions and combat global climate change, it must pass a law prohibiting excessive idling. Some may argue that an anti-idling mandate is unnecessary because public education programs can inform drivers of economic and environmental harms and allow these actors to eliminate the habit on their own. These views are misguided. An anti-idling mandate is the necessary catalyst Michigan needs

[102] Wolman, *supra* note 1, at 29.
[103] Proposed City Ordinance, Art. VI Ch. 71, at 13-14.

to jumpstart a widespread reduction in vehicle idling. Currently, public education programs across the country seek to inform idlers, but the problem continues to exist. Individuals and companies may see idling costs as insignificant and thus value their comfort or freedom to keep their engine running.[104] As a result of this valuation, an anti-idling mandate is needed to make the economic costs of idling greater. A mandate will alter the cost benefit analysis that drivers partake in when deciding to idle. With a higher cost, drivers will be more likely to act rational and turn their engine off.

Michigan's anti-idling mandate should incorporate the best features of the statutes discussed in the previous section. First, it should punish individual drivers of all vehicles. Including all vehicles in the law, like Ann Arbor's proposed ordinance, will have the largest impact on global climate change. Second, the law should punish both individual drivers and the owners of loading/unloading facilities. This is effective because it seeks to limit idling in two contexts. Third, after an initial warning, subsequent fines should not exceed $150 for drivers and $500 for loading/unloading facility owners. A milder punishment, distinct from the one in Minneapolis, will likely result in less pushback from voters. Nonetheless, similar to Detroit's ordinance, this law should have an ascending amount of citations for continuous idlers to maximize its deterrent effect. Mirroring Michigan's

[104] Now that you have read about the harmful impacts of idling, every time you idle you are consciously deciding that the costs of idling are not worth shutting off your engine. This shows that you value your freedom to keep your engine running over the economic, environmental, and health costs of idling. For this reason, a public education campaign alone might not be effective.

proposed statute, this law should preempt local ordinances but allow for corresponding legislation. Finally, there should be exceptions for traffic, emergency vehicles, idling for work purposes and extreme weather above 90 degrees or below 10 degrees Fahrenheit. Unlike the Ann Arbor proposed ordinance that allows exceptions "necessary" for weather, this legislation should have firm weather guidelines. These strict guidelines quash arguments that idling is "necessary" at a multitude of temperatures, but avoid voter pushback by allowing idling for comfort in extreme circumstances.

The biggest obstacle for enacting an anti-idling law is most likely garnering public support. For example, opponents might argue this law is simply an "idling tax." Politicians should therefore focus the public's attention to the benefits of an idling law. Like many states across the country, Michigan is currently having financial troubles. Hence, politicians could frame the excessive idling law as a way for the state and other localities to receive funds while subsequently helping the environment. Rather than simply being a tax, it influences drivers to change idling habits to benefit community health and the environment. Some may argue that the law will go unenforced, as in Chicago. The most effective way for Michigan to quiet these dissenters is to treat enforcement of the idling law like it treats enforcement of seat belt laws. For seat belt laws, Michigan sets up "seat belt enforcement crackdowns" to show the public that it will

vehemently enforce the law.[105] The state could easily set certain days each year that police officers would aggressively seek out excessive idlers and issue tickets. Moreover, if Michigan allowed local governments to collaborate and keep some of the revenues generated from fines, localities would be more likely to aggressively enforce the law.

Politicians in Michigan can also effectively use public education as a tool to combat vehicle idling. Initially, the state can fund a billboard campaign in large cities like Detroit that articulate the harmful effects of idling. The billboards could be similar to that of Green NYC, which portray a bird being showered by a cloud of exhaust while exclaiming, "TURN IT OFF. Idling your engine contributes to asthma, cancer, & heart disease."[106] Other billboards can describe the individual fuel costs of idling and punishments for violating anti-idling laws. Another effective way to educate the public would be through driver education programs that every driver must pass in order to receive a driver's license. During classes, Michigan could mandate that the teacher speak about the harmful effects of idling. This will be much more cost effective than using taxpayer money for PSAs. Also, this strategy will be effective because these students have not yet developed wasteful idling habits that are hard to break.

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[105] *See generally* Anne Readett, Law Enforcement Seat Belt Crackdown Plays Key Role in 50 Percent Reduction in Labor Day Traffic Deaths, *available at* http://www.michigan.gov/msp/0,4643,7-123-1586_1710-51100--,00.html.
[106] Image can be found at http://huntergatherer.net/news/?m=200904.

If Michigan chooses to use anti-idling policies as a way to reduce its impact on global climate change, then it is imperative for the state to seek federal funding. One way is to apply for a federal grant to retrofit school buses and other publicly owned heavy-duty vehicles with idle reduction technology. The Ohio EPA has used funds from federal grants and environmental violations to award school districts with more than $7 million to retrofit 2,337 school buses with emission controls and 544 buses with idle reduction technology.[107] Ohio estimates that this program has removed more than 145 tons of pollutants from the air.[108] In 2009, Michigan used $1.07 million from the EPA's Clean School Bus Program to install emission reduction technology on 405 school buses in the greater Lansing area.[109]

However, Michigan could do more to find federal funding to limit idling emissions. For example, Michigan could develop a program modeled after Missouri. Recently, Missouri's Department of Natural Resources and Department of Transportation received an EPA National Clean Diesel Campaign grant for $726,000 to retrofit department vehicles with emission and idle reduction technology.[110] Missouri reports reducing its particulate

[107] Clean Diesel School Bus Fund Retrofit Grants Program, information available at http://www.epa.ohio.gov/oeef/schoolbus.aspx.
[108] National Clean Diesel Campaign, Emissions Reduction Projects, Environmental Protection Agency *available at* http://epa.gov/cleandiesel/projects/projects.htm.
[109] *Id.*
[110] Missouri Clean Diesel Project, Environmental Protection Agency, *available at* http://www.epa.gov/cleandiesel/projects/mo-cleandiesel.htm.

matter emissions by 50 percent and Carbon Dioxide emissions by 90 percent, all while saving over 5,600 gallons of fuel annually.[111]

On January 4, 2011, President Obama signed H.R. 5809 reauthorizing $100 million in grants for state governments to reduce emissions from diesel engines from 2012 through 2016 under the Diesel Emissions Reduction Act ("DERA").[112] DERA funds are split into four programs, with 70 percent of the funding in national competitive grants and 30 percent of the funding allocated to states.[113] Under DERA, Michigan should first seek funding from the SmartWay Clean Diesel Finance Program. This program is a national competitive grant that "uses cooperative agreements to establish innovative financing programs" for states to purchase clean diesel equipment, including idle reduction technology.[114] In 2009, Tennessee effectively used this program to secure $5 million to guarantee loans for private trucking companies to purchase vehicles with verified emission controls and idle reduction technologies.[115] Additionally, Michigan can use its share of the 30 percent of DERA funds allocated for states.[116] Each state is eligible for funding, but if Michigan matches the federal award it can receive "an

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[111] *Id.*
[112] Energy Policy Act of 2005, Title VII, Subtitle G, § 791-797.
[113] *Id.*
[114] National Clean Diesel Campaign, Grants & Funding SmartWay Finance Program, *available at* http://www.epa.gov/cleandiesel/prgfinance.htm.
[115] National Clean Diesel Campaign, Emissions Reduction Projects, *supra* note 89.
[116] National Clean Diesel Campaign, Grants & Funding State Grant Program, Environmental Protection Agency, *available at* http://www.epa.gov/cleandiesel/prgstate.htm.

additional amount equal to half of their base funding."[117] Michigan can use these funds to retrofit its government fleets like Missouri, or provide incentives for in-state trucking companies to install idle reduction technology similar to Wisconsin.

Michigan can also use federal funds for congestion mitigation. The anti-idling laws previously discussed all have exceptions for idling while in traffic. Traffic idling is seen as a necessary evil that cannot be avoided. Therefore, Michigan should use federal assistance in congestion mitigation to prevent traffic jams and this "unavoidable" idling. The Congestion Mitigation and Air Quality Improvement Program (CMAQ) is a federal program that provides state departments of transportation funds to reduce transportation-related emissions.[118] Mainly, the Michigan Department of Transportation should apply for grants to increase traffic flow improvements. An EPA study noted that a significant contributor of GHGs in Michigan is heavy-duty idling while trucks wait to cross the Ambassador Bridge from Detroit to Canada.[119] Along with CMAQ funds to purchase idling reduction technologies for these drivers, Michigan can request funds to build a new bridge from Detroit to Canada. This new bridge will open up the traffic bottleneck at the current

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[117] *Id.*
[118] 23 U.S.C. § 149. Information available at http://www.afdc.energy.gov/afdc/laws/law/US/284.
[119] L.K. Baxter, ET. AL, *Contributions of Diesel Truck Emissions to Indoor Elemental Carbon Concentrations in Home Proximate to Ambassador Bridge*, Atmospheric Environment, vol. 42, issue 40, 9080-86, (2008), *available at* http://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=191583&fed_org_id=770&SIType=PR&TIMSType=&showCriteria=0&address=nerl/pubs.html&view=citation&personID=5930&role=Author&sortBy=pubDateYear&count=100&dateBeginPublishedPresented=.

location and consequently eliminate heavy-duty truck idling at the border. However, the federal share of CMAQ projects is generally 80 percent, and building a bridge might be unfeasible if Michigan must bear 20 percent of the cost.[120] Additionally, CMAQ is a reimbursement program, and Michigan may not be able to provide enough up-front capital to build a new bridge.[121]

Michigan should utilize tax incentives to influence change. These incentives will make it feasible for companies to buy and install idle reduction technology and reduce the harmful impact of vehicle idling. With the costs saved in fuel and tax incentives, companies will easily be able to recoup the costs associated with implementing this technology. Similar to Colorado and Oregon, Michigan should consider a tax credit after concluding that the benefits of doing so would outweigh the costs of implementing such a measure. For example, if Michigan credits 10 percent of the costs associated with buying and installing idle reduction technology, it may reduce a significant source of revenue that the state desperately needs. On the other hand, this credit might be what companies need to make it economically feasible to install idle reduction technologies in their fleets. The credit might subsequently influence companies to move their operations to Michigan because of the savings. These new businesses could potentially

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[120] *Congestion Mitigation and Air Quality (CMAQ) Improvement Program under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users Final Program Guidance,* FEDERAL HIGHWAY ADMINISTRATION at 10, Oct. 8, 2008, *available at* http://www.fhwa.dot.gov/environment/air_quality/cmaq/policy_and_guidance/cmaq08gd.pdf.

[121] *I Think I want a CMAQ Project… Don't I?*, at 1, *available at* http://www.ncdot.org/doh/preconstruct/tpb/PDF/AQ_CMAQ_InfoSessionHandout.pdf.

bring more employment opportunities for citizens and further benefit the state.

Michigan should specify the types of idle-reduction technologies for which it will provide tax credits. Other states do not do this. For example, Colorado simply allows credits for "qualified" idle reduction technologies.[122] "Qualified" technologies mean EPA SmartWay verified idling reduction technologies.[123] Because SmartWay only verifies engine modifications and electronic parking spaces, "qualified" technologies only include those that prevent long-duration truck idling.[124] Michigan needs to be more advanced in its tax incentives and provide tax relief for other proven and effective idle reduction technologies.

Wireless fleet management systems, like those provided by companies within the CTIA Wireless Association, are one example of an effective "non-qualified" idle reduction technology.[125] Wireless fleet management systems use "Machine to Machine (M2M) devices attached to fleet vehicles to record and wirelessly communicate data to a centralized fleet management software system."[126] This process then allows the fleet manager to see how often and for how long vehicles are idling. The manager will then point out inefficiencies and correct them. Telgis Inc. is one company shows how this

[122] COLO. REV. STAT., *supra* note 50.
[123] Information available at http://www.epa.gov/smartway/technology/idling.htm.
[124] *Id.* (The "automatic shut down/start up systems" are only qualified for locomotives).
[125] BSR, *Wireless and the Environment: A Review of Opportunities and Challenges*, Oct. 2011, *available at* http://files.ctia.org/pdf/Wireless_and_the_Environment_10-06-2011.pdf.
[126] *Id.* at 13.

can be effective. Telogis has customers reporting a 50% reduction in idling and one client reporting savings of over 950,000 gallons of fuel each year because of the system.[127] Moreover, UPS has installed similar wireless sensors on 37% of its trucks and saved approximately 90,000 gallons of fuel by limiting engine idling duration times.[128]

Michigan could also provide tax credits for companies that choose to install integrated starter-generators (ISGs) in their fleets or for manufacturers choosing to implement this technology in their vehicles. ISGs allow gasoline powered vehicles to work like hybrids and shut off the engine when the vehicle idles.[129] Large scale implementation of these devices would effectively eliminate many of the problems with vehicle idling. Private companies, like FreshDirect, are already taking advantage of this technology. FreshDirect, a New York based delivery company, is outfitting its fleet of 150 diesel-powered trucks with ISG anti-idling technology.[130] Since FreshDirect has accumulated $120,000 in idling fines, it sought to prevent future fines by retrofitting its trucks with ISG technology.[131] FreshDirect is a positive example of how anti-idling laws can influence industry change.

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[127] *Id*. at 15 (citing Telogis Fleet Case Study, "Rapid Return on Investment," *available at* http://www.telogis.com/benefits/yourroi/).
[128] *Id.* at 18 (citing UPS, "Delivering the World: Sustainability at UPS," CSR Report 2009, 41, *available at* http://www.responsibility.ups.com/community/Static%20Files/sustainability/UPS_V27_0718_300dpi_rgb.pdf).
[129] Michael P. Vandenbergh, *supra* note 26, at 1728.
[130] James Barron, *FreshDirect Will Limit Idling Time for Trucks*, N.Y. TIMES, Apr. 24, 2009, *available at* http://www.nytimes.com/2009/04/25/nyregion/25fresh.html.
[131] *Id.*

Buick is another company implementing ISG technology. In its 2012 LaCrosse and Regal models, it provides ISG technology through its "eAssist" feature, and reports 36 miles per gallon highway.[132] If Michigan were to provide tax incentives to the automotive companies headquartered within its borders, this would further influence the implementation of ISG technology in passenger vehicles. With these suggestions, Michigan has the potential to become a leader in the anti-idling movement.

CONCLUSION

Wasteful vehicle idling is a subject that is ignored even though people witness it every day. Idling is one cause of global climate change that can be substantially eliminated by changing some easily reversible habits. Therefore, if Michigan is serious about its efforts to help the environment, it needs to consider the options this article has laid out. Michigan should be a leader in this field. If it wants to be a leader, it needs to take these suggestions seriously. Eventually, if Michigan can influence other states to adopt its policies, unnecessary vehicle idling can become a problem of the past.

[132] Buick, http://www.buick.com/eassist-fuel-efficient-technology.html.