PLANNING AND DEVELOPMENT
400 LA CROSSE STREET | LA CROSSE, WI 54601 | P: (608) 789-7512

Memorandum

To: Climate Action Plan Steering Committee
From: Amy Webster, Sustainability Intern
CC: Mayor Reynolds, Common Council
Date: August 5, 2021
Re: Reducing Vehicle Idling Time

The City of La Crosse's 2009 *Strategic Plan for Sustainability* set a goal for the City's transportation fleet use at least 25% less fossil fuel by 2025. While the Plan includes several possible actions to reduce fossil fuel use, this memo focuses on recommended actions to reduce vehicle idling times and maximize engine performance. It includes case studies from other municipalities and recommendations for SMART goals to build on the Plan's actions. This memo will show how idling policies could be used for the City's upcoming Climate Action Plan and help it reach carbon neutrality by 2050. Idling reduction would also support the City's 2020 Safe Routes to School Plan and achieve a Green Tier Legacy Communities strategy.

Vehicle idling is a major contributor to gas consumption and greenhouse gas emissions. The US Department of Energy (DOE) estimates that in the United States annually, 3 billion gallons of fuel are wasted, resulting in around 30 million tons of CO_2 emitted. If those emissions are evenly distributed by population, nearly 470,000 gallons of fuel wasted and 4,700 tons CO_2 emitted could be attributed to La Crosse residents. At $3.00/gal, that's over $1.4 million spent on vehicle idling every year.

Idling harms a vehicle's engine as well. According to an article on fuel cost management and productivity, idling wears on internal vehicle parts at twice the rate of normal driving. This damage does much more harm than stopping and restarting the engine. In addition to physical wear and tear on engines, idling can also result in a buildup of residue, reducing engine performance.

Case Studies

Many communities are making strides to decrease or even ban idling. The DOE's Database of Idling Regulations shows 36 states and 71 municipalities have some form of a formal idling ordinance or law, with many others are making strides toward cleaner air informally. Currently, Wisconsin has no statewide limits, but some of its communities have made efforts to decrease idling. The following research looks into five communities on three main areas for idling reduction— on municipal fleet vehicles, in the community, and at our schools.

400 LA CROSSE STREET | LA CROSSE, WI 54601 | P: (608) 789-7512 | F: (608) 789-7318

Municipal Fleet Vehicles

Fitchburg, WI set a time limit for idling of city-owned and operated vehicles. Fleet managers have incorporated this policy into the general training for employees who will be driving fleet vehicles. Like other communities with idling limits, it allows exceptions for personal and machinery safety. The DOE Clean Cities Coalition Network's IdleBox noted some common exemptions: responding to an emergency call, powering auxiliary equipment, waiting in traffic, when passenger safety or comfort in certain situations, when necessary in weather conditions (i.e. defogging windshields), experiencing mechanical problems, being serviced, during inspection, when following manufacturers recommendations for warming up or cooling down vehicle in certain temperatures, if the vehicle is powered by natural gas or electricity, and for occupants to complete reports. Since enforcement of idling policy is challenging, many other communities offer training without formal restrictions.

Community

It is more common to see vehicle idling bans applied community-wide where there are already similar ordinances in place for municipal vehicles. Madison, WI, passed an ordinance in 2017 limiting idling to five minutes, though very few actions are actually taken. Again, certain exemptions are common in Madison and other communities: emergency vehicles, while in traffic, in extreme weather, during servicing, powering auxiliary equipment, passenger loading and unloading, climate control for the safety of passengers, heavy-duty vehicles to meet operating temperature, operating cranes/ forklifts, charging a hybrid vehicles' battery, electric vehicles, and public vehicles and their contractors.

Oshkosh, WI drafted a vehicle idling ordinance proposal in 2017. It did not get enough support to pass due to issues with enforcement and funding. The police and parking enforcers did not have the capacity to take on the additional task of monitoring idling vehicles. Also, there were concerns about disproportionate impact on already heavily policed populations and areas. Instead, Oshkosh opted for a campaign to educate drivers about the repercussions of idling and asking them to limit their personal idling habits. City officials provided some great resources regarding letters to schools, which will be discussed below.

Fitchburg went the informal route and provides educational tools for the community in the form of flyers and signs (Appendix A). The flyers are distributed at city events, such as an e-waste collection drive. The signs are posted on City property where idling is common.

Also, there are sixteen communities in the Database of Idling Regulations that impose idling limits on trucks over a certain gross vehicle weight. In addition to the problems associated with passenger vehicles, heavy-duty diesel engines emit solid particulate matter that can cause breathing problems and other health issues.

Schools

Student drop off and pick up can create a lot of congestion with lines of buses and parent vehicles converging on school doorways. Some schools take a formal policy route when it comes to reducing idling. The State of Indiana requires schools to create their own policy on school bus idling on school properties, whereas other states ban school bus idling altogether. Milwaukee stipulated in their bus contract that the drivers are to limit their idling.

Parents contribute a significant amount of idling emissions around schools. For this issue, the Oshkosh requested the schools send a letter to parents, sharing the dangers of idling and asking them to be mindful of their practices (Appendix B).

Even universities can get in on practices of reducing idling on campus. The University of Nebraska- Lincoln has a Vehicle Anti-Idling policy in their University Vehicle Management. Two Texas universities – Arlington and Houston – include Anti-Idling polices, as does St. Lawrence University (NY), to name a few.

The EPA provides resources for schools to limit the vehicle idling that happens around their property, including school buses. These tools can be used for data collection and analysis as in the classroom, teaching students about real life science. It can open the door for conversations about both the scientific method and air pollution with children.

Recommendation

These case studies and resources highlight several options to move forward with idling reduction goals. La Crosse could set any anti-idling policy goal to reduce municipal vehicle idling 50% by 2025. The City of Oshkosh found that the average car idles for 16 minutes per day and about 8 minutes are avoidable. The first step for this policy would be to provide training during the orientation for employees who will be using municipal vehicles, followed by annual reminders via email or meeting. This training would insure employees are aware of the policy and the situations that where idling is acceptable.

Once that has been implemented and, La Crosse could begin an educational campaign based on resources from Oshkosh, Fitchburg, and the EPA. The City would be leading by example and partner with the school districts, universities, and major employers. La Crosse could set a goal to partner with at least 10 major employers on idling reduction programs by 2030.

As the community learns more about the program, La Crosse could implement a more formal ordinance to reduce idling. These may include policies for school zone, large trucks, or a city-wide limit. These regulations could have some leeway and not ban idling completely, looking at the exemptions from other communities for guidance. The City could also set standards with contractors it works with by creating limits on idling for their vehicle fleet.

These goals have the potential to reduce fossil fuel used by municipal and community vehicles. By emulating examples from other communities, La Crosse can reduce vehicle idling time in a way that will likely have broad support. These policies combined with other recommended actions for reducing fossil fuel, can establish La Crosse as an environmental and economical leader in Wisconsin.

Turn Off that Engine, Please

Each day Americans waste approximately 3.8 million gallons of gasoline by voluntarily idling their cars. For every gallon of gasoline used, a vehicle emits an average of 20 lbs of CO_2. That translates to 13 million tons of CO_2 produced annually from voluntary idling![a] The resulting pollutants linger in the environment and cause long-term health impairment and environmental damage. Studies have shown that idling for over **10 seconds** uses more gasoline and produces more CO_2 emissions than restarting your engine.

What can you do? Participate. If it looks like you'll be waiting for more than **10 seconds**, turn off your engine, and restart it when you're ready to move . . . and encourage others to do the same.

Why should you participate? People participate for varying reasons: they don't want to be wasteful; they want to minimize their environmental impact; they want better gas mileage; they're concerned about air quality.

No matter how efficient your car, voluntary idling wastes fuel, costs you money and pollutes the air. So, please, join in the campaign to reduce voluntary idling by turning off your engine if you'll be waiting for longer than **10 seconds**.

Fitchburg's Idling Reduction Campaign will result in improved air quality, reduced fuel costs and reduced greenhouse gas emissions. Participating area businesses are posting signs, designed by 5th graders at Leopold Elementary School, reminding customers to turn off their engine while waiting.

(a) "Anti-Idling Primer; Every Second Counts" by Hal Hinkle, Patricia Deacon & "Kasia Duda Hinkle Charitable Foundation

Turn Off that Engine, Please

Each day Americans waste approximately 3.8 million gallons of gasoline by voluntarily idling their cars. For every gallon of gasoline used, a vehicle emits an average of 20 lbs of CO_2. That translates to 13 million tons of CO_2 produced annually from voluntary idling![a] The resulting pollutants linger in the environment and cause long-term health impairment and environmental damage. Studies have shown that idling for over **10 seconds** uses more gasoline and produces more CO_2 emissions than restarting your engine.

What can you do? Participate. If it looks like you'll be waiting for more than **10 seconds**, turn off your engine, and restart it when you're ready to move . . . and encourage others to do the same.

Why should you participate? People participate for varying reasons: they don't want to be wasteful; they want to minimize their environmental impact; they want better gas mileage; they're concerned about air quality.

No matter how efficient your car, voluntary idling wastes fuel, costs you money and pollutes the air. So, please, join in the campaign to reduce voluntary idling by turning off your engine if you'll be waiting for longer than **10 seconds**.

Fitchburg's Idling Reduction Campaign will result in improved air quality, reduced fuel costs and reduced greenhouse gas emissions. Participating area businesses are posting signs, designed by 5th graders at Leopold Elementary School, reminding customers to turn off their engine while waiting.

(a) "Anti-Idling Primer; Every Second Counts" by Hal Hinkle, Patricia Deacon & "Kasia Duda Hinkle Charitable Foundation

Waiting?

>10 seconds!

Please turn off your engine

Save $ and our air

Fitchburg

Waiting?

>10 seconds!

Please turn off your engine

Save $ and our air

Fitchburg

City of Oshkosh

Dr. Andrew Jones
Executive Director of Administration
Oshkosh Area School District
215 South Eagle Street
Oshkosh, WI 54902

Dear Dr. Jones,

The Oshkosh Sustainability Advisory Board recently joined forces with students from UW-Oshkosh on a project aimed at reducing idling vehicles in our community. The two groups drafted an education campaign to help spread the message about the effects of idling vehicles. The attached letter explains some of the details, causes and effects and some solutions to minimize the risks associated with idling vehicles.

The Sustainability Advisory Board would like to partner with the Oshkosh Area School District to help spread the word explaining the effects of vehicles idling in school zones. To help facilitate this campaign, the Sustainability Advisory Board is asking that you distribute the attached letter to parents and guardians. Please feel free to share the letter with families as you see fit (via newsletters, website etc.).

Thank you for your consideration of partnering with the Oshkosh Sustainability Advisory Board in this effort. If you have any questions, about the Sustainability Advisory Board or this initiative, please contact Assistant Planner Steven Wiley at swiley@ci.oshkosh.wi.us or 920-236-5062.

Sincerely,

Mark A. Rohloff
City Manager

City of Oshkosh

Dear Parents/Guardians,

Unnecessary vehicle idling is a contributor to air pollution and increased health risk in our community. One of the areas where unnecessary idling occurs the most is at our school when children are being dropped off or picked up. High concentrations of idling vehicles greatly increase the presence of toxic chemicals such as; nitrogen oxides, carbon monoxide, and volatile organic compounds. By turning our engines off in school zones, we can drastically decrease the amount of toxic chemicals that we release near our children. Join us in creating a healthier environment for our children.

Facts about vehicle idling:

1. Children take in more air than adults per pound of body weight, therefore children near idling take in more harmful emissions than adults.
2. Athletes take in even more air during practices and games.
3. Idling prolongs the cold start period for an engine, leading to increased amounts of emissions.
4. Stopping an engine for a short time (from several seconds to a few minutes) reduces the fuel consumption of gasoline vehicles, while idling vehicles continued to consume fuel during the idling process.
5. The higher the concentration of idling cars, the higher the concentration of pollutants/particulates entering the air.
6. Emissions have shown an increased effect of asthma symptoms in 7-8% of the population, especially for young children (American Journal of Respiratory and Critical Care Medicine, 2005)

What you can do:

1. Reduce your idling in school zones and near children's sporting events.
2. Talk with other parents about idling. Please pass along the message about the negative effects vehicle idling in school zones has on children.
3. Consider carpooling to reduce emissions.
4. Reduce your idling during other times of non-moving traffic (trains, open bridges, etc.)

Please join us as we seek to reduce the level of idling in the City of Oshkosh, and, in particular, at our Oshkosh Area Schools. Thank you for taking steps to provide your child with a healthier school environment.

Sincerely,

Margy Davey

Margy Davey
Chair, Oshkosh Sustainability Advisory Board