

Executive summary

Title: Anti-idling research and recommendations

Recommended action: No action required. This topic has been placed on the agenda to begin a conversation around anti-idling policy recommendations.

Policy consideration: Does the city council wish to take action to limit vehicle idling in St. Louis Park? What policy tools would the council like to use to take action?

Summary: Idling refers to running a vehicle's engine when the vehicle is not in motion. Idling has numerous negative impacts, including air pollution, carbon emissions, and a heightened risk of vehicle theft.

Staff has been working with the Environment and Sustainability Commission (ESC) to draft options for reducing idling in St. Louis Park and has prepared a report detailing these options for council consideration. These include regulation through ordinance, resolution statement, internal fleet policy, and a public education campaign. Each option is described along with some of the advantages and disadvantages of each.

The ESC and staff are recommending that council consider option 1 and/or 2.

Financial or budget considerations: None at this time.

Strategic priority consideration: St. Louis Park is committed to continue to lead in environmental stewardship.

Supporting documents: Discussion

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Discussion

Background: Idling refers to running a vehicle's engine when the vehicle is not in motion (for the purposes of this report, a "vehicle" is one with an internal combustion engine that burns gasoline, gasoline-ethanol, diesel, biodiesel, natural gas or propane; while battery electric vehicles will drain their batteries while idling, they have no tailpipe emissions and therefore may be a lesser concern). Idling can be both discretionary (providing heat and air conditioning for the driver, talking on a cell phone in a parking lot, waiting to pick up a passenger, sitting in a drive-thru line or while waiting for a curbside order) and non-discretionary (stopped in heavy traffic or waiting for a traffic signal, powering on-board devices and equipment, inspection and maintenance, emergency and public safety). Misinformation likely contributes significantly to idling as well, with many drivers believing that the things they learned about cars from past generations, like engines needing to warm up in the winter (no longer true since electronic injection systems replaced carburetors), still apply to modern vehicles.

Idling has numerous negative impacts:

- *Adverse effects on public health:* Idling can produce more tailpipe emissions per minute than driving. Studies have linked various types of vehicle emissions to asthma symptoms, cardiopulmonary disease, lung cancer and other causes of death. Children are even more vulnerable to air pollution than adults because they breathe much more air per pound of body weight and their respiratory defenses are not fully developed (source: Mid-America Regional Council), which makes idling outside schools—one of the most common idling scenarios as parents wait to pick up children—especially dangerous. Vehicle exhaust has also been linked to brain cell damage. Drivers are likely unaware that the catalytic converter, which reduces tailpipe emissions, reaches operating temperatures much sooner when driving than when idling.
- *Carbon emissions:* Eliminating 16 minutes of discretionary idling per day would result in a savings of 704 pounds of CO₂ for a typical four-cylinder passenger vehicle (source: Sustainable America). Assuming 40,000 passenger vehicles are registered in St. Louis Park, this equates to 13,000 tons CO₂ per year that could be eliminated, or the equivalent CO₂ of 1,500 homes' energy use for one year. Most mid-size and larger SUVs and trucks are equipped with six-cylinder engines, so the total amount of carbon emitted is likely even greater. Transportation makes up 39% of total greenhouse gas emissions in St. Louis Park and is the largest source of greenhouse gas emissions in Minnesota.
- *Heightened risk of vehicle theft:* In 2019, St. Louis Park experienced 93 auto thefts. Fifty-four percent of those vehicles were idling or had the keys left in them. Auto thefts in 2020 rose to 165, with 47 percent of those found idling. Auto theft rises about 25% in the winter due to vehicles being left unattended to warm up with the keys in the ignition--"puffer" thieves look for the telltale white puffs that emanate from a car's exhaust on a cold day when searching for targets. Many people are unaware that driving helps the engine reach its ideal operating temperature faster than idling it.
- *Wasting money:* Vehicles get 0 MPG while idling. A typical four-cylinder passenger vehicle wastes 32 gallons of fuel annually through discretionary idling (source: Sustainable America), at a cost of \$75-100. Idling while waiting consumes more fuel and is much less efficient than turning the engine off and on again, despite many people believing the opposite.

- *Vehicle wear-and-tear*: Vehicle manufacturers advise that idling for longer than 30-60 seconds can actually be damaging to an engine. Idling can produce sulfuric acid, which can eat away at a vehicle's engine and other components. Additionally, idling results in lower combustion temperatures, which can produce additional soot and creates buildup in the engine (source: US Department of Energy).
- *Noise*: An idling vehicle contributes to noise pollution, which can affect hearing and stress levels.

In February 2020, concerned residents and Councilmember Kraft attended an Environment and Sustainability Commission meeting to ask the ESC about researching anti-idling tools and presenting recommendations for ways to limit idling to council. The research was tabled for a year due to COVID-19.

At the March 9, 2021 council study session, Councilmembers Kraft and Rog presented a study session topic proposal on Vehicle Idling, which included a request for staff and the ESC to work on the issue jointly. Staff presented on the topic at the April and May ESC meetings, and the ESC expressed support for reducing idling in St. Louis Park through a few different means.

Present considerations: Public agencies across the country have employed a variety of tools in an effort to limit vehicle idling. This report attempts to summarize options that the city council may choose to pursue individually or in combination, noting the options that the ESC has endorsed.

Option 1: Anti-idling policy for city fleet vehicles

This option is endorsed by the ESC.

Description: Create a standalone anti-idling policy for city staff who use fleet vehicles to include more specific rules around idling of gas and diesel-fueled vehicles than the language in the City Vehicle Usage policy (written in 2013) ("Vehicles must be off when the vehicle is unattended. Exceptions are vehicles that require the strobe/hazard lights to be on or the use of inverters.").

Examples: Unknown, but likely that many public agencies have internal policies (could base specifics off the Minneapolis ordinance)

Advantages:

- Limiting idling is good for air quality and carbon reduction
- Improves respiratory health of city staff and customers
- Fuel and money savings for city operations
- Opportunity to educate fleet users about idling
- Can place reminder decals inside vehicles
- Can motivate compliance with rewards for fuel efficiency improvements
- Leading by example

Disadvantages:

- Unclear how prevalent this is given high compliance with existing policy—may require a lot of effort for little additional benefit
- Vehicles are shared, meaning that specific employees are not tied to specific vehicles and any fuel efficiency data would have to be analyzed at a fleet-wide level
- Public safety vehicles, emergency vehicles, and many public works, parks and city maintenance vehicles must be idled to maintain power to on-board devices and equipment, meaning policy would only apply to handful of fleet vehicles

Option 2: Educational campaign
This option is endorsed by the ESC.

Description: Use city communications tools (including, potentially, signage) to spread message throughout the city that idling is detrimental to public health and the environment.

Examples: Common at schools, but no examples found from cities (beyond those that have ordinances in place, such as New York City)

Advantages:

- Limiting idling is good for air quality and carbon reduction
- Improves respiratory health of drivers and passengers
- Fuel and money savings for vehicle owners
- Collateral materials already exist that could be leveraged
- Campaign could both encourage individual participation in reducing greenhouse gas emissions and increase participation in other sustainability activities
- Opportunity for events such as film screenings (“Idle Threat” documentary)
- Could create targeted list of common discretionary idling locations and partner with those businesses, school district/Roots & Shoots and private schools to encourage participation in campaign
- Could partner with local fleet owners to assist in spreading the message

Disadvantages:

- Difficult to educate vehicle owners who are not based in St. Louis Park
- Not enforceable

Option 3a: Anti-idling ordinance city-wide for all on-road gas and diesel-fueled vehicles

Description: Restrict through regulation the number of minutes that passenger vehicles and heavy-duty trucks and buses are able to idle, with possible exceptions for public safety and emergency response vehicles; public works, parks and city maintenance vehicles; refrigerated delivery trucks; vehicle breakdowns; extreme temperatures; etc.

Examples: Minneapolis, Saint Paul (remote starters exempt), Owatonna, St. Cloud (limited in geographic scope), Fargo

Advantages:

- Could reduce vehicle theft in scenarios where cars are left idling with keys/fobs in ignition
- Limiting idling is good for air quality and carbon reduction
- Fuel and money savings for vehicle owners
- Opportunity to educate vehicle owners about idling
- Leading by example

Disadvantages:

- Enforcement would be difficult and limited (Minneapolis’s ordinance is administered by their Health Department and it is unclear how many citations are written; Fargo’s ordinance is not enforced, per deputy police chief); calls would require immediate response
- If enforcement is inconsistent, could frustrate residents and hurt sustainability message
- Could have unintended consequences, e.g. being used by neighbors to harass one another or report visitors they find suspicious (at a recent Sierra Club presentation, a

local environmental justice trainer described a heated discussion at a Minneapolis Southside Green Zone meeting in which some community members said anti-idling policies felt like “vehicular stop-and-frisk”)

- Could frustrate vehicle owners who have paid to install remote starters to warm up their vehicles, unless exempted—which could lead to confusion

Other considerations:

- Consider whether to prohibit all idling, or only idling when vehicle is unattended with keys/fob in the ignition
- Consider whether to exempt vehicles on private property, including driveways and most parking lots, and whether there would be unintended consequences of doing so (i.e. vehicles moved from street to driveway to warm up)
- Consider how to address drive-thrus, where idling is frequent and largely unavoidable
- Consider whether to exempt electric vehicles and if so, which types (battery electric, plug-in hybrid electric, or hybrid electric)
- Would working toward a coalition created to push for consistent anti-idling regulations (or using an existing coalition to push for the same) throughout the metro be more effective than policy enacted in a patchwork way?

Option 3b: Anti-idling ordinance city-wide for commercial vehicles
(i.e. heavy-duty trucks and buses) only

Description: Restrict through regulation number of minutes that heavy-duty commercial vehicles are able to idle, with possible exceptions for non-road vehicles; public safety and emergency response vehicles; public works, parks and city maintenance vehicles; refrigerated delivery trucks; vehicle breakdowns; extreme temperatures; etc. Heavy-duty vehicles typically burn diesel and emit significantly more particulate matter and carbon than passenger vehicles.

Examples: Minneapolis; idling of school buses state-wide must be “minimized” per Minnesota statute

Advantages:

- Limiting idling is good for air quality and carbon reduction
- Fuel and money savings for truck and fleet owners
- Opportunity to educate vehicle owners about idling
- Leading by example

Disadvantages:

- Enforcement would be difficult and limited (Minneapolis’s ordinance is administered by their Health Department and it is unclear how many citations are written); calls would require immediate response
- Could be confusing for drivers to understand what applies to them
- Difficult to communicate to truck drivers and fleet owners based outside St. Louis Park

Other considerations:

- Unclear how prevalent this is (the city Fleet Manager noted that most if not all major freight and parcel companies delivering to the Municipal Service Center turn off trucks on arrival)
- Consider whether to exempt vehicles on private property, including most parking lots and loading docks

Option 4: Anti-idling resolution statement

Description: Adopt a resolution affirming support for clean air and improved health through encouraging limits on idling.

Examples: Houston, New Jersey

Advantages:

- Opportunity to educate vehicle owners about idling
- Leading by example
- Could pinpoint “idle-free zones” throughout the city for signage, targeting areas with high levels of particulate matter or those where idling is common, such as curbside pick-up spots (assuming private property owners cooperate)

Disadvantages:

- Not enforceable
- Could cause confusion for residents wanting to report perceived violations
- May be difficult to establish “idle-free zones” with nearby businesses and residents

Option 5: Anti-idling policy at city facilities

Description: Create policy to ban all vehicle idling (including fleet vehicles and privately-owned vehicles) at all of the city’s major facilities and parks, with possible exceptions for public safety and emergency response vehicles; public works, parks and city maintenance vehicles; refrigerated delivery trucks; vehicle breakdowns; extreme temperatures; etc.

Examples: Unknown

Advantages:

- Limiting idling is good for air quality and carbon reduction
- Fuel and money savings for vehicle owners
- Opportunity to educate vehicle owners about idling
- Could create “idle-free zone” signage for city properties

Disadvantages:

- Unclear who could enforce or how
- Could be confusing for drivers to understand policy that only applies on city property
- Signage at all entrances and throughout parking lots needed for visitors
- Consider whether to exempt electric vehicles and if so, which types (battery electric, plug-in hybrid electric, or hybrid electric)

Next steps: Staff will work internally and/or with the city attorney to draft the necessary policy, campaign or code language to create the programs the council wishes to pursue (if any). This language, along with any financial considerations, will be presented at a future council study session for consideration.