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Clean Fuel Profile: Idle-Reduction Technologies - Auxiliary Power Units -

Please note that this information is for reference only to provide general information and rough cost estimates associated with incorporating idle-reduction technologies into a fleet's operations. Fleets are encouraged to contact suppliers directly for exact costs related to their specific operations. Information on specific suppliers is included for reference only and is not an endorsement by the Regional Planning Commission or the Southeast Louisiana Clean Fuel Partnership for specific technology supplier. Fleets are encouraged to research suppliers before entering into a contract with them, performing the same due diligence they would for any other contract.

Auxiliary Power Units (APUs)

- For light-duty fleets and passenger vehicles such as cabs, limousines, ambulances, and police cars that must sit for long periods, APUs are good alternatives to idling. They provide cooling, heating, and electronic device power without running the vehicle's engine.
- For medium-duty trucks that require taking power from a power source and transmitting it to an application throughout the day, an APU can be an excellent solution. Vehicles can have a small diesel engine like a generator, which uses less fuel and produces fewer emissions than an idling vehicle's main engine would.

Additional information on idle-reduction technology is located on the US Dept. of Energy's Alternative Fuel Data Center: www.afdc.energy.gov/conserve/idle_reduction_basics.html.

Cost Savings by Idling Less

You can calculate the total avoidable idling costs including fuel costs, preventive maintenance costs, and overhaul/replacement cost by using Argonne National Laboratory's Idle-Reduction Savings Calculator**:** www.transportation.anl.gov/pdfs/idling_worksheet.pdf.

For an interactive Excel version of this calculator, please go to www.transportation.anl.gov/downloads/idling_worksheet.xls.

Available Financial Assistance & Incentives

Contact Courtney Young, Southeast Louisiana Clean Fuel Partnership Coordinator, for additional information on these opportunities: (504) 483-8519 / slcfp@norpc.org

- **Diesel Emission Reduction Act (DERA) National and State Clean Diesel Programs** (Grant & Match amount varies depending on the project)**:**
  - National Program: www.epa.gov/cleandiesel/grantfund.htm
    - Latest Funding Summary (applications are usually due each Spring): https://cleanfuelpartnership.weebly.com/uploads/1/4/4/8/14487114/fy19_epa_clean_diesel_summary.pdf
  - State Program (applications are usually due each Fall): https://deq.louisiana.gov/page/dera-funding-opportunities

Available Auxiliary Power Units (APUs)
Estimated Costs, Timeline, Technical Assistance

Company: Stealth Power (www.stealthpower.net)

Contact: Bill Needles: (512) 306-0088 / bneedles@stealthpower.net

ALL idle mitigation systems include:

- Emergency jump-start feature ensuring vehicles always have battery power
- Silent stealth operation for controlled mission capability
- Installation time of 2 hours
- Online Technical Support
- 12-month Warranty

➢ Public Works Series

- Allows full operation of the on-board electrical systems – including lights, HVAC, communications equipment, laptops, video cameras, tools, etc. without engine engagement
- Options such as a Microsoft data packages and 24 Volt HVAC condenser.
- Self-charging or can be plugged into shore power (e.g. an electrical outlet)
- Cost estimate:
  - → Unit: Prices range from $12,000 to $13,000 depending on power needs.

➢ Law Enforcement Series (SP2)

- Allows full operation of the on-board electrical systems including lights, HVAC, communications equipment, laptops, video cameras, tag readers & electronic weapon release systems without engine engagement
- Options such as a Microsoft data packages and 24 Volt HVAC condenser.
- Self-charging or can be plugged into a dedicated 20A outlet
- Non-combustible, gunshot resistant
- Cost estimate:
  - → Unit: $7,000

➢ Law Enforcement K-9 Kool Application (SP6 with A/C)

- Allows full operation of the on-board electrical systems including lights, HVAC, communications equipment, laptops, video cameras, tag readers & electronic weapon release systems without engine engagement
- Options such as a Microsoft data packages and 24 Volt HVAC condenser.
- Self-charging or can plugged into shore power (e.g. electrical outlet)
- Non-combustible, gunshot resistant
- Automatic safety door release for K9 in the event of high temperatures, smoke or fire
- Notification network alerts Officer of system status
- Cost estimate:
  - → Unit: $15,000
  - → Added equipment such as dog cage, camera, sensors, video screens are available for an additional charge

Company: ZeroRPM (www.zerorpm.com)

Contact: Todd Self: (256) 339-4335 / todd.self@zerorpm.com

ALL idle mitigation systems include:

- Full operation of HVAC, Radio, and Auxiliary Power (including emergency lights) without engine engagement
- Automatic engine shut-down after one minute of idling and auto restart
- 2.5+ Hours Continuous Run Time
- Shore Power Charges in 4-6 Hours
- Guided Installations with technician training available or full-service installations
- 2-Year Warranty
- Online Technical Support
- Options such as a quick-charge alternator, mobile remote control, mobile alerts and reporting, extended warranty are available for an additional charge.
- To learn more about ZeroRPM's 12 different systems, please visit: www.zerorpm.com/solutions.
- For pricing, please contact Todd Self.

State and Local Idle Reduction Laws

US DOE provides a comprehensive database of idling regulations for on-road vehicles called IdleBase (https://cleancities.energy.gov/files/docs/idlebox_idlebase_database.xlsx). It is designed to be a reference tool for those who need to know the laws (e.g., fleet managers and drivers) and those who are interested in learning how other states, regions, counties, and municipalities seek to reduce the fuel waste and air-quality effects associated with idling (e.g. policymakers).

In the state of Louisiana, several idle-reduction regulations exist within the City of New Orleans:

Location	Vehicle Type	Idling Restriction	Exemptions	Regulation
New Orleans	Buses	20 minutes	Situations beyond the operator's control and as otherwise provided for in Chapter 162 and Section 162-942.	New Orleans, Louisiana Code of Ordinances, Part II, Chapter 122, Public Transit Vehicles, Section 122-52, Operating at Idle
New Orleans, Garden District (bounded by St. Charles Avenue, Jackson Avenue, Louisiana Avenue, and Magazine Street)	Buses	10 minutes	Situations beyond the operator's control.	New Orleans, Louisiana Code of Ordinances, Part II, Chapter 162, Vehicles for Hire, Article IX, Tour Vehicles and Buses, Section 162-941e, Garden District tour bus route limitations
New Orleans, Vieux Carre (French Quarter)	Buses	10 minutes while loading or unloading passengers; maximum of 15 minutes in one place	NA	New Orleans, Louisiana Code of Ordinances, Part II, Chapter 162, Vehicles for Hire, Article IX, Tour Vehicles and Buses, Section 162-942, Vieux Carre bus limitations (French Quarter)

Fleets Currently using Idle-Reduction Technology

Case Studies on fleets currently using idle-reduction technology can be found on the US Dept. of Energy's Alternative Fuel Data Center: www.afdc.energy.gov/case (select "**Idle Reduction**" under **Fuel/ Technology**). The Case Studies can also be searched by application (e.g., law enforcement). The Clean Fuel Partnership can connect you to the Clean Cities coordinators involved in these case studies to learn more from their experiences.

Local Fleets with Idle-Reduction Policies and/or Technologies:

- **New Orleans EMS** uses idle reduction technology in 16 ambulances. Since June 2018 to June 2019, the systems have helped reduce over 14,000 hours of idling saving the City of New Orleans about $40,000 in fuel cost. Press Release: https://content.govdelivery.com/accounts/LANOLA/bulletins/248e89a
  - Contact: Deputy Chief Cedric Palmisano: Special Operations and Logistics New Orleans Emergency Medical Services: cpalmisano@nola.gov
- **Port of New Orleans** is an active member of the Green Marine certification program for the North American maritime industry. Port NOLA has implemented an Idle Reduction policy for all Board employees and Board-owned vehicles and equipment, effective November 2016: www.portnola.com/community/sustainable-development
  - Contact: Amelia Pellegrin: Director of Sustainable Development: amelia.pellegrin@portnola.com / (504) 528-3301
- **Abita Brewing Company**: Every 18-wheeler in the Abita delivery fleet is equipped with an energy saving APU. https://abita.com/about/green-brewing.
  - Contact: Abita Brewing Company: 985-893-3143

Information for Law Enforcement Fleets

Vehicles using idle-reduction systems by Law Enforcement Fleets across the US include:

- Chevrolet Tahoe
- Dodge Charger
- Ford Escape
- Ford Fusion
- Ford Crown Victoria
- Ford E-Series
- Ford Explorer
- Ford Taurus
- Ford Police Interceptor Utility SUV

Additional Resources

US Dept. of Energy's Alternative Fuel Data Center:
www.afdc.energy.gov/conserve/idle_reduction_basics.html

US Dept. of Energy's National Idling Reduction Network News:
https://www.energy.gov/eere/vehicles/national-idling-reduction-network-news

Idle-Reduction Savings Calculator (Argonne National Laboratory):
www.transportation.anl.gov/pdfs/idling_worksheet.pdf