



Idle Free Systems
City of Madison
CDBG-R RFP

Company Contact

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**Idle Free Systems, Inc is a Wisconsin based C
corporation**

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DUNS:011102391

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Program Design

Idle Free Systems (IFS), a Wisconsin based manufacturer of aftermarket idle elimination equipment for the commercial trucking and school bus industry is seeking \$106,050.00 (one hundred six thousand and fifty dollars) in CDBG-R funds to support the expansion of our manufacturing and sales capabilities at our Wisconsin facilities. The funds will be used to purchase the necessary inventory of raw materials and components to manufacture the systems and fill orders that exist today and meet anticipated demand over the next 5 years. Based on current growth projections the company anticipates creating 3 FTE jobs at our Madison office to support the company's growth. The company's matching funds will be sourced from a recent successful equity raise. As the only Wisconsin based manufacturer of idle elimination equipment, the funding will enable the company to keep its manufacturing facility in the state of Wisconsin.

Having access to the CDBG-R funds will enable Idle Free to continue to hire a customer service team to support direct sales to large fleets. This team will also continue to build a national dealer network to support sales and service through the establishment of strategic partnerships with OEM's such as Mack and Volvo.

Qualifications

Idle Free Systems, Inc. was established in 2003 and has been doing business since 2007. The company sells battery powered, idle elimination systems for over-the-road trucks, day cabs, and school buses. The patented and patent pending technology enables companies to comply with all anti-idling laws while also significantly reducing operating expenses. Idle Free is the recommended idle elimination system of Mack Trucks.

Per the U.S. Census and industry publications, there are roughly 2.6 million Class 8 trucks, of which 85% do not currently use idle reduction systems. Additionally, there is a completely untapped market of approximately 18 million day cab trucks, which represent 84% of the commercial vehicles on the road. Combined this represents a market potential for idle elimination equipment and the Idle Free system of \$25 billion.

The idle elimination market is delineated by diesel APU's and battery powered systems (BP). Diesel APUs, unlike the Idle Free system, cost about \$2,500 per year to operate due to fuel use and required maintenance, and are not compliant with many states' anti-idling laws. The BP systems have historically had performance issues relative to run-time and quality of airflow because they operate as a 12 volt DC based system. Idle Free is superior because it converts 12 volt DC into 120 volt electricity to power the system components, resulting in longer run times and sustained cooling and heating capabilities with fewer batteries.



Idle Free Systems patented and patent pending technology performs as well as a diesel APU but is more environmentally friendly and economical; and it outperforms all other battery based systems with superior cooling capability and longer run time on fewer batteries. Idle Free is the superior green solution for idle elimination because there are no annual operating costs or required maintenance, and it is 100% CARB compliant. The Idle Free system captures and stores the waste energy from the truck's alternator in an AGM battery bank while the truck is moving. When the engine is off, the power in the battery bank is converted into electricity to power all the driver's needs such as A/C, heat, TV and computer. IFS has developed a proprietary, patent pending A/C system, which creates a significant competitive advantage relative to system performance, ease of installation and opportunity to expand into new markets.

Revenue is generated through the sale of Idle Free systems either direct to the owner/operator and fleets or through a "dealer". Revenue is generated on a per system sale with the price of the systems ranging from \$1,995 to \$8,995 depending on the system type and configuration.

Outcomes

Idle Free Systems has a critical and strategic role relative to energy saving efforts and the development of market leading green energy related technology. Specifically, the installation of an Idle Free system on a commercial truck will significantly reduce the waste associated with discretionary idling and the emission of harmful green house gases. The EPA estimates approximately 3000 gallons of diesel fuel are wasted each year for every sleeper truck due to discretionary idling. The installation of an Idle Free system completely eliminates the need to idle a truck and therefore significantly reduces our dependency on foreign oil and reduce the worlds carbon footprint.

Drivers are required to take breaks and are limited to 12 to 14 hours of work each day. The work day of a truck driver includes loading and unloading the cargo. This means that the actual driving time is typically 10 to 12 hours per day. Since a driver can legally only drive ½ of a 24 hour period, it is not uncommon to find a truck that spends 50% of its engine run hours idling (stationary). These requirements leave the driver in a predicament because air conditioning and heat are only available if the engine of the truck is running. The Idle Free system uses renewable energy (rechargeable batteries) to run heat and air conditioning for the driver to be used when the truck is stationary. Since drivers spend part of their down time doing things other than sleeping, the Idle Free system provides 120 volt power for needs such as TV and microwaves.

The energy savings associated with using the Idle Free system are based on the elimination of the need to run the truck's engine to provide heat and air conditioning for the driver when a truck is stationary.



Idle Free Systems estimates that over a 3 year period, the sale of Idle Free systems will save 17,941,660 gallons of diesel fuel, thereby significantly reducing our dependency on foreign oil and a non-renewable energy source.

Over that time, this equates to 2,341,386,630,000 BTUs saved.

- Year 1: 273,735,495,000
- Year 2: 780,234,835,500
- Year 3: 1,561,151,794,500

Ongoing, the annual BTU's saved will be at least 1,561,151,794,5000 in addition to the diesel fuel savings.

Additionally, the use of an Idle Free system will significantly reduce the world's carbon footprint. The CO₂E savings is based on the calculation that one gallon of Diesel Fuel makes 22.2 pounds of CO₂. So if 17,941,660 gallons of diesel we consumed because of discretionary idling (see above calculation) it would create 398,304,852 pounds of CO₂. When converted from pounds to tons (398,304,852 pounds of CO₂ equates to 199,152.4 tons of CO₂) that results in a reduction of 199,152.4 tons of CO₂ in just the first three years of the program.

- Year 1: 23,283.2
- Year 2: 66,364.8
- Year 3: 109,504.4

On-going, at a minimum, there will be a savings of 199,152.4 tons per year saved by eliminating the discretionary idling and saving the burning of the diesel fuel.

Reporting and Reimbursement

The funds will be used to purchase the necessary inventory of raw materials and components to manufacture the systems and fill orders that exist today and meet anticipated demand over the next 5 years. Requests for reimbursement/dispersement of the loan will occur once raw materials and components have been ordered.

Idle Free will provide the following documentation as part of the reimbursement request:

- A company issued PO to a vendor for the raw materials and components
- A packing list included in the delivery of the raw materials and components
- A copy of the invoice from the vendor for the raw material and components
- A copy of payment made to the vendor

Based on current growth projections the company anticipates creating 3 FTE jobs at our Madison office to support the company's growth. The company will substantiate achieving this hiring objective by providing the following documentation:



- Job description for open position
- Offer letter for candidate
- Copy of W2 or other acceptable documentation that the individual is on the company payroll
- Completion of any other forms or information requests to enable City of Madison CDBG Committee to comply with HUD requirements

Budget

Idle Free Systems is seeking \$106,050.00 (one hundred six thousand and fifty dollars) in CDBG-R funds to purchase the necessary inventory of raw materials and components to manufacture the systems and fill orders that exist today and meet anticipated demand over the next 5 years.

Idle Free Systems cost of goods sold (COGS) is approximately \$5,000.00 (five thousand dollars) per system. In order to effectively ship orders and meet the customers required delivery dates, Idle Free Systems must have materials on hand to manufacture and assemble approximately 20-25 systems at any time. Therefore the requested loan amount will provide the necessary working capital to order and have inventory of the raw materials and components to produce the Idle Free system.

References

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