WHAT ARE MY OPTIONS?

<table>
<thead>
<tr>
<th>Technology</th>
<th>Description</th>
<th>Net savings per year</th>
<th>Typical years to payback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic engine start/stop system (AESS)</td>
<td>AESS turns engine on or off to maintain cab temperature.</td>
<td>$2,444</td>
<td>0.8</td>
</tr>
<tr>
<td>Battery Auxiliary Power Unit (APU)</td>
<td>Separate power unit from engine. Battery powered. Some APUs can plug into the electrical grid via a power pedestal.</td>
<td>$2,906</td>
<td>2.8</td>
</tr>
<tr>
<td>Solar No-Idle HVAC</td>
<td>Solar powered battery APU. Attaches to tractor/trailer roof, intended for HVAC and other specific uses.</td>
<td>$3,456</td>
<td>3.2</td>
</tr>
<tr>
<td>Solar Transport Refrigeration Unit (TRU)</td>
<td>Solar system attaches to tractor/trailer roof. Charges battery APUs for specific uses and refrigeration for cargo, such as food products.</td>
<td>$6,960</td>
<td>12.2</td>
</tr>
<tr>
<td>Electrified Parking Spaces (EPS)</td>
<td>Provided at truck stops or designated facilities. Drivers physically connect an HVAC attachment to truck window for heating and cooling. Many EPS also provide connection to electricity, internet and satellite TV.</td>
<td>$126</td>
<td>Immediate</td>
</tr>
</tbody>
</table>

Savings estimates based on a fuel price of $2.25 per gallon.

The Rio Grande International Study Center, established in 1994, is a 501c3 nonprofit based in Laredo, TX. Its mission is to preserve and protect the Rio Grande-Rio Bravo, its watershed and environment for the benefit of present and future generations.

Although the tasks and activities set forth in this Technical Assistance Agreement have been funded in whole or in part by the U.S. EPA and North American Development Bank, such tasks/activities do not necessarily reflect the policies, actions, or positions of the U.S. EPA or NADB.

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A Laredo-based project to reduce diesel emissions through the implementation of idling reduction technologies.
WHY IS IDLING BAD FOR BUSINESS?

Idling Burns up Profits

Laredo, TX is the nation’s largest inland port, crossing $231.6 billion in imports and exports in 2019 through 14,000 diesel-powered commercial trucks each day.

The average heavy-duty truck in the U.S. idles approximately 1,800 hours per year, consuming 0.8 gallons of diesel per hour. Annually, this represents 200,000 miles of engine wear and 1,440 gallons of fuel burned while the truck is not in motion. At a cost of $2.25 per diesel gallon, this equates to a yearly financial loss of $4,000 - $7,000 in fuel and maintenance costs for just a single truck.

The Opportunity

Reducing long-duration idling means:

• Lower fuel costs
• Lower engine maintenance costs
• Extended engine life
• Improved operator well-being by decreased noise levels
• Less harmful emissions released into the environment.

Idling reduction presents a fairly simple and straightforward way to boost profits, and promote cleaner air quality for drivers and the community.

WHY IS IDLING BAD FOR THE COMMUNITY?

Idling Worsens Air Quality

Long-duration truck idling emits millions of tons of pollutants into the atmosphere every year. This includes carbon dioxide, nitrogen oxides, particulate matter and other greenhouse gasses. These harmful pollutants contribute to climate change and ozone formation, presenting serious public health concerns.

Idling Harms Human Health

Prolonged exposure to diesel emissions can lead to asthma and heart conditions and can cause cancer. Children and the elderly are especially vulnerable. This is particularly worrisome in Laredo, where more than 30% of residents live in poverty and the percentage of people without any type of health insurance is three times the national average.

HOW CAN I HELP?

Alternatives to Idling

Idle reduction technologies, or IRTs, allow drivers to reduce long-duration idling of the main engine by using alternative and affordable options.

An IRT device generally has the following three main characteristics:

• installed on a vehicle or at a location;
• reduces unnecessary engine idling
• provides heat, air conditioning, and other services to the commercial vehicle that would normally require idling while the vehicle is temporarily parked or remains stationary.

Laredo is already a leader in international trade, it’s time we become the leader in clean international trade.