## State/Local Idle Reduction Regulations

<table>
<thead>
<tr>
<th>State</th>
<th>Applicability</th>
<th>Idling Time Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX (Houston / Galveston)</td>
<td>Diesel/gasoline motor vehicles (&gt; 14,000 lbs GVW)</td>
<td>5 min* April 1 – Oct 31 30 min* for heat/AC transit/school buses</td>
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<tr>
<td>UT (Salt Lake City)</td>
<td>Diesel vehicles</td>
<td>15 minutes*</td>
</tr>
<tr>
<td>VA</td>
<td>Buses when unattended, parked, or stopped</td>
<td>10 minutes*</td>
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</tbody>
</table>

*Source: CARB and EPA  
*with some exemptions*
DOE Idle Reduction Demonstration

• Goal: To gather objective in-use information on the performance of available technologies by characterizing:
  – Specifications and Costs: system descriptions, capital and installation costs, payback periods
  – Vehicle Operations: fuel consumption (truck idling and IR systems), engine oil consumption and changes, maintenance (truck and IR systems)
  – Other Evaluation Information: engine and component wear, resale value, user impressions
DOE Idle Reduction Demonstration

- Reduce 800+ million gallons of annual fuel use during idling periods
- Reduce average of 2,000 hours of idling
- Fleet/component demonstration/data collection project partners:
  - Caterpillar, International Truck, Cox Trucking
  - Schneider National, Freightliner, Webasto Thermosystems
  - Espar, Wal-Mart Transportation, Truck manufacturer TBD
DOE Idle Reduction Demonstration – Caterpillar Team

• Team: Caterpillar, International Truck, and Cox Transfer
• Five new idle reduction trucks, five control trucks
• Trucks idle about 1840 hours/year
• MorElectric™ Technology
• Electrically driven accessories
• Three main components
  – HVAC unit, generator, and APU
  – IR uses 0.2 gallons fuel/hour versus 0.9 gallons fuel/hour for C13 engine
• Duration - FY03 4 Quarter – FY05 4 Quarter
DOE Idle Reduction Demonstration – Schneider National Team

- Team: Schneider National, Freightliner, Webasto Thermosystems
- 100 trucks with heating and 20 trucks with cooling systems
- Trucks idle approximately 480 hours/year
DOE Idle Reduction Demonstration – Schneider National Team (cont’d)

• Webasto Air Top 2000 cab heater
  – Self contained diesel fueled air heater
  – Offered as standard installation option from Freightliner
• Webasto Cab Cooler
  – New product that utilizes phase change cooling storage technology
  – Medium is charged during normal tractor operation using existing air conditioning system
• Duration - FY03 4 Quarter – FY05 2 Quarter
DOE Idle Reduction Demonstration – Espar Team

- Team: Espar, Wal-Mart Transportation, truck manufacturer TBD
- 20 trucks with combined heating / cooling systems
- At least two control trucks
- Espar Airtronic Bunk Heater
  - Diesel fueled coolant heater for engine pre heat
- D.C. Airco
  - Rooftop mounted electric air conditioning unit
  - Operates on starting or auxiliary batteries
- Duration - Award expected FY04
All vehicle testing reports and fact sheets available via:

http://avt.inel.gov