



**Idle reduction...why bother?**



# The Consequences of Curbside Idling



**Increased fuel consumption**



**Increased maintenance costs**



**Increased CO2 emissions**

**Many operators leave their vehicle's engine running when parked or standing...**



**...just to keep the battery charged**

# Why does the battery need constant charging?



# Causes of “Phantom” Battery Drain

Type of Battery Drain	watt-hours per day	% battery drain per week
VEHICLE IS NOT USED 2 OR MORE DAYS PER WEEK	24	14%
GPS / NAVIGATION IS CONTINUOUSLY IN STANDBY MODE	30	18%
CELL PHONE CHARGER IS ALWAYS ON	36	22%
ON-BOARD COMPUTER IS CONTINUOUSLY IN STANDBY MODE	120	72%
DASH CAM / RECORDER IS ALWAYS ON	130	78%
RADIO IS IN STANDBY MODE WITH THE IGNITION OFF	130	78%
VEHICLE <b>OCCASIONALLY</b> USED FOR EMERGENCY LIGHTING WITH IGNITION OFF	130	78%
ON-BOARD COMPUTER IS ALWAYS ON	175	105%
VEHICLE <b>FREQUENTLY</b> USED FOR EMERGENCY LIGHTING WITH IGNITION OFF	230	138%
RADIO IS ALWAYS ON	290	174%

## The real issue

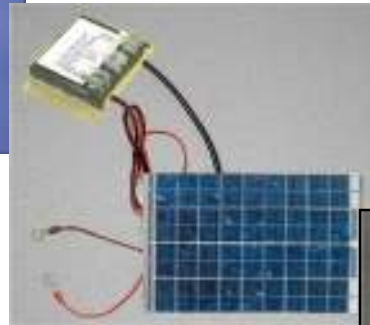


***Used as a means of keeping the battery charged, idling costs \$4.28 per kw-hour, or 40 times the grid rate for electrical power.***

# To-do List



Find abundant source of clean energy



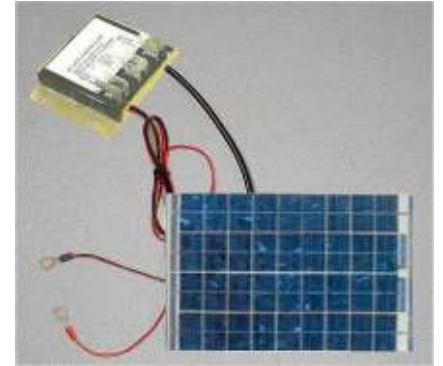
Find a way to harness it

Reduce idling/petroleum consumption



# ***The Solinator***

Solar Battery Charger



**Pre-wired, easy to install**

**2-watt to 55-watt systems**

**Rugged, weatherproof panels**

**Energy harvester maximizes collection**

**For exterior mounting on vehicles, trailers, etc.**

# Return on Investment

<b>ITEM</b>	<b>PRODUCT CODE</b>	<b>UNIT PRICE</b>	<b>WH per day</b>	<b>Idle Time Reduction</b>	<b>Annual Savings Per Vehicle</b>
2-watt unit	SB-2-0-0-12-C	\$71.35	12	5	\$76
5-watt unit	SB-5-0-0-12-C	\$129.74	30	10	\$150
10-watt unit	SB-10-0-0-12-C	\$168.75	60	20	\$300
24-watt unit	SB-24-0-0-12-C	\$283.15	144	50	\$750
55-watt unit	SB-55-0-0-12-C	\$456.52	330	75	\$1120

# **Pilot Project**

## **QUALIFIED FLEETS:**

- **90-day unit evaluation**
- **On-board battery status metering**
- **Consult on panel sizing**
- **Assist with special options**

The logo for NEST Energy Systems features the word "NEST" in a large, bold, green font with a black outline, set against a yellow sunburst background. To the right, the words "Energy Systems" are written in a bold, red, italicized font with a black outline. Below the logo, the website address "WWW.NESTENERGYSYSTEMS.COM" is displayed in a blue, sans-serif font.

# **NEST** *Energy Systems*

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*Thank you for making America cleaner & greener!*

