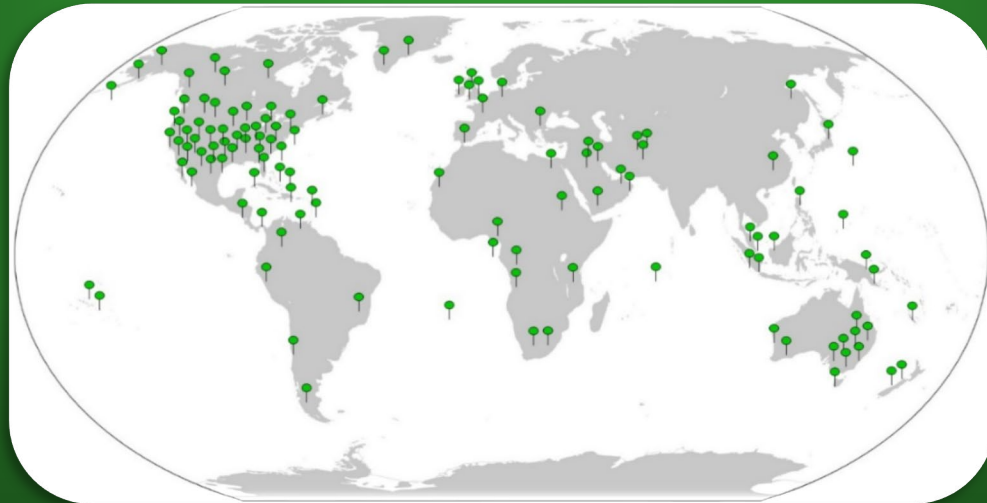




AirBurners with **Biomass Energy**



Why are wood and vegetative waste an important topic?

Mass quantities piling up every where, especially since China's "National Sword" policy came into effect.

Problem is only getting worse with Wildfire mitigation and tree mortality.

What to do?

- Recycle what we can, but it is very limited options.
- Expand Biomass Energy.
- Eliminate it.

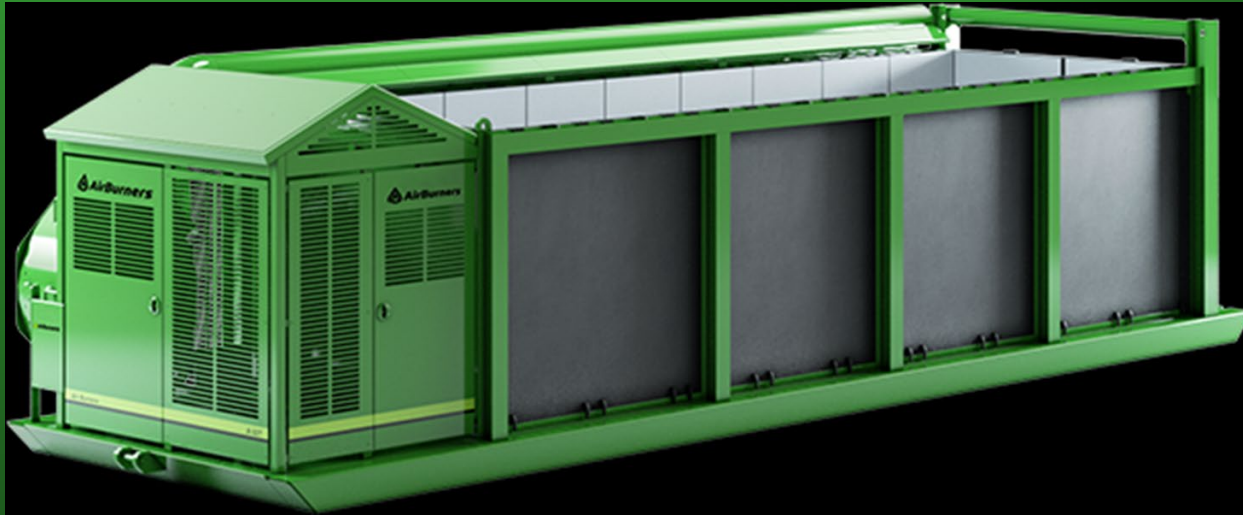


Why eliminate Wood and Veg Waste?

- 20% of the World's total waste
- US collected 50M Tons of green waste
- Recycling less than half
- Does not include:
 - Wildfire Mitigation**
 - Tree Mortality**
 - State and National Parks**
 - Agriculture**



Best way to eliminate vegetative waste:



Air Curtain Burner

Air Curtain Burner?

Used to Eliminate wood and vegetative waste

Excellent Environmental and Economic Solution

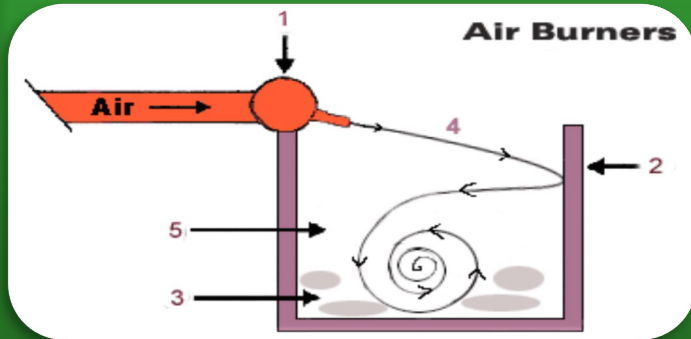
Pollution Control Device

Air Curtain Technology controls smoke

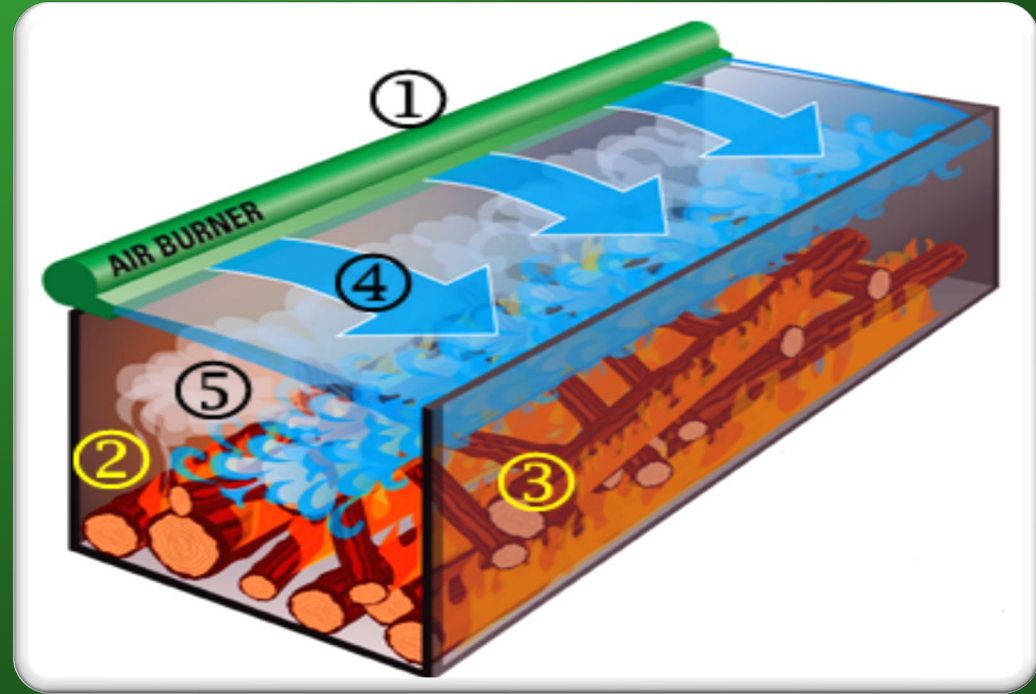
Air Curtain Technology

How does it work?

Horizontal Air Curtain Creates secondary burn chamber

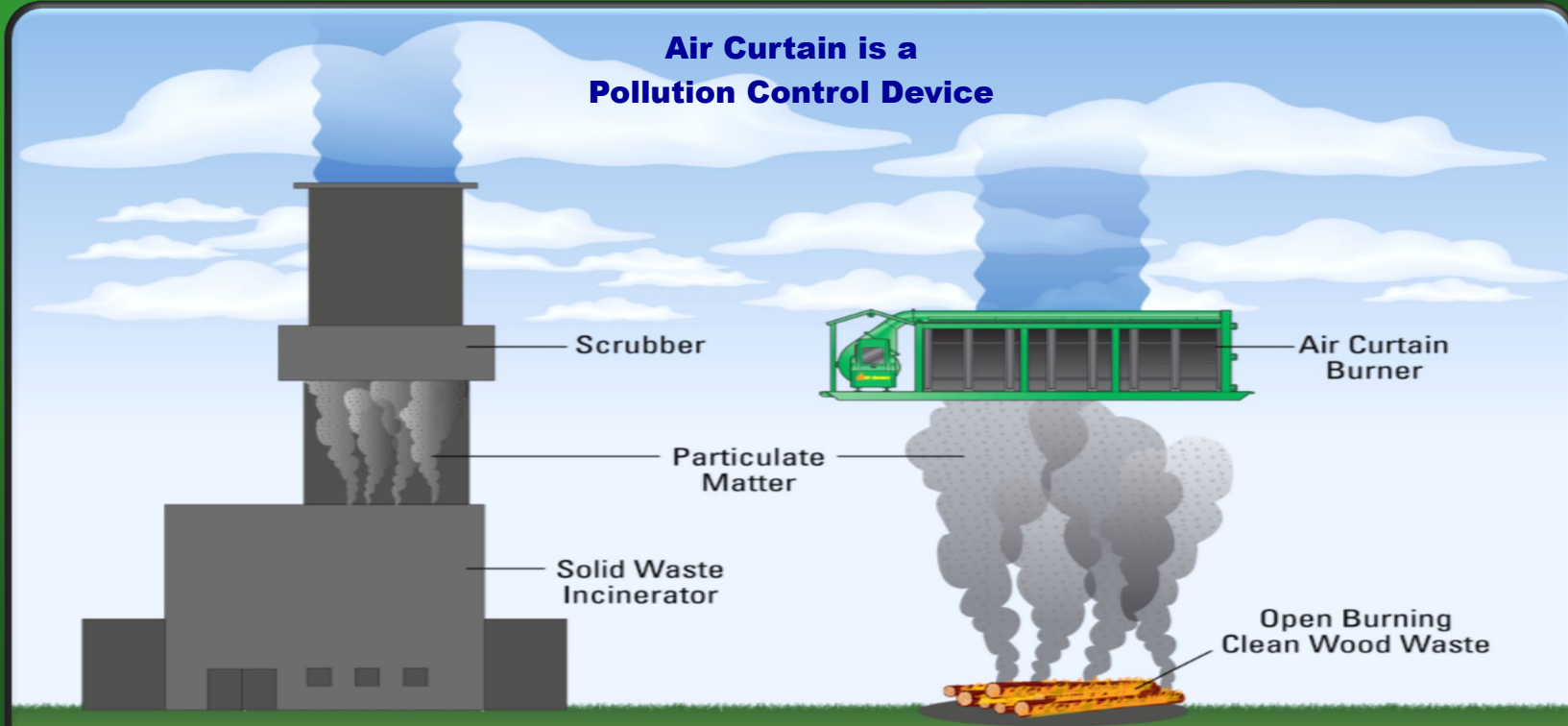


- 1=Air Manifold
- 2=Firebox Refractory Wall
- 3=Wood Waste or Wood Fuel
- 4= Air Curtain (left to right)
- 5=Smoke (PM)



1. High velocity curtain (4) traps particles under the curtain
2. Particles under curtain (5) are reburned

Air Curtain is a Pollution Control Device



Like a Scrubber, Air Curtain machines do not burn anything, they just control the emissions from something burning

Primary Purpose

Controlling Particulate Matter – Smoke – Black Carbon

Proven Technology

Well tested Asia, Europe, Canada, Australia and USA

Air Burners, Inc. is a proud CRADA partner with the USEPA and USFS

CRADA Partner



CRADA Partner



Actual Comparison Testing To Open Burning

Open Burning
20 tons of waste



Air Curtain Burning
20 tons of waste



Environment Canada



Lowest Cost and Fast

Air Curtain Burners
20 tons of wood waste
eliminated in **1 hour**

Open Burning
20 tons of wood waste
burning for **48 hours**



Environment Canada

Particulate Matter release for 20 tons of wood waste

Air Curtain Technology

Air Burners Machines

BurnBoss



- Largest manufacturer of Air Curtain Burners

- In business over 25 years

- Our machines are on every continent except Antarctica



FireBox

- 12 Different models of Air Curtain Burners

Roll-Off



FireBox

www.AirBurners.com



Land Clearing



Landfill Operation



Electric Power



Roll-Off FireBox

Also "J" hook and Chain Hoist available



BurnBoss towable



California Parks



Biomass Energy



On Grid

Off Grid



An Entirely New Approach to Biomass Energy

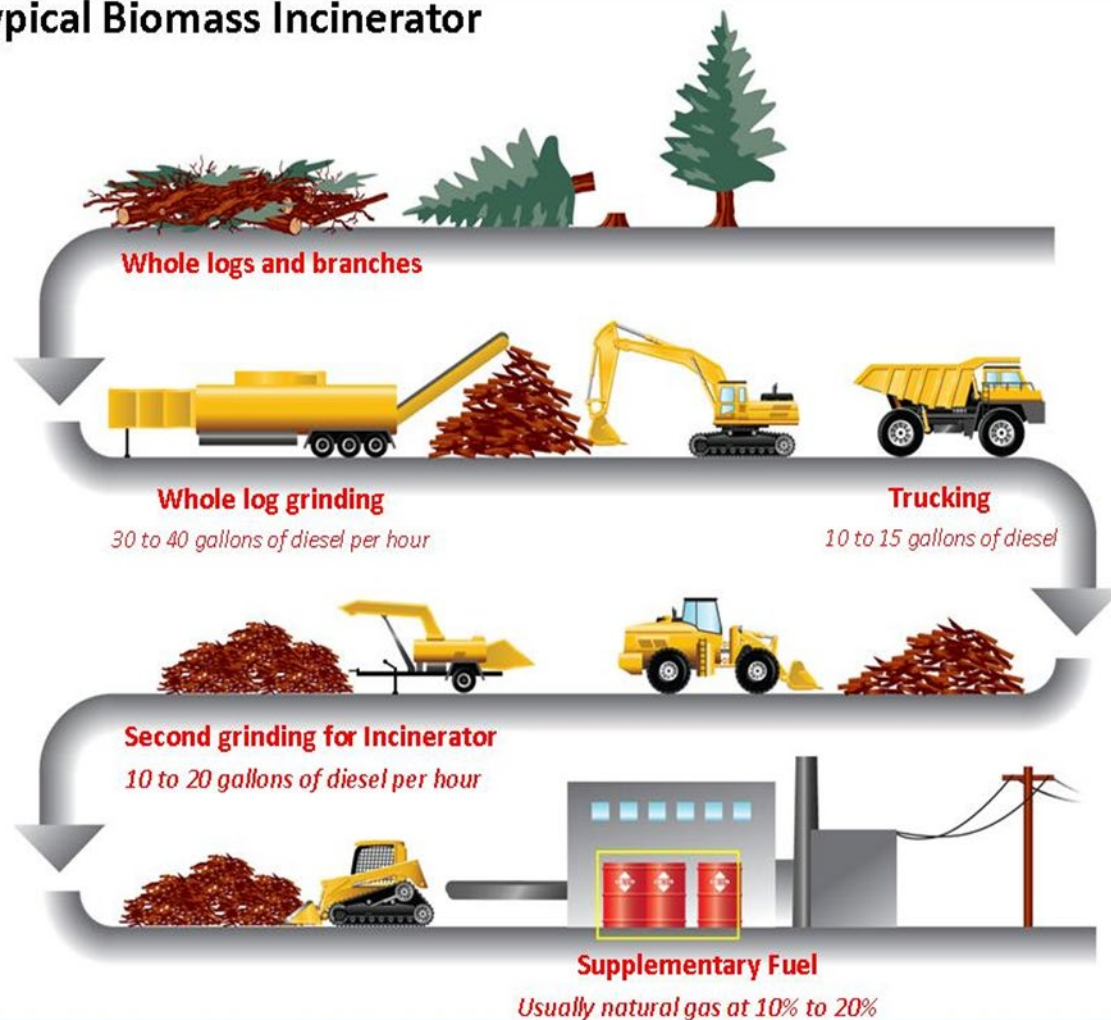
- Waste is now a Revenue stream
- High throughput compared to other schemes
- No supplemental fuels needed
- No permanent structures
- No expensive pre-processing operations like grinding/sorting

Typical Biomass Incinerator

The Problem

Current Biomass Processing

- Expensive
- High Emissions
- Supplemental fuel
- High capital costs
- Permanent structure





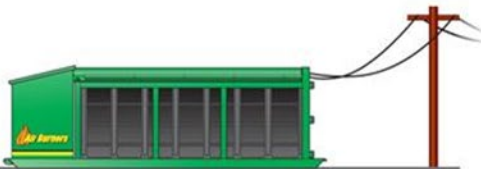
Trucking

10 to 15 gallons of diesel

**Eliminating the
Cost, Time and Pollution**



Whole logs and branches



Clean Efficient Power

The Solution

PGFireBox

- No processing
- No supplemental fuels
- Movable system
- Lowest emissions
- Easy installation



Electrical Energy = 100kW

Thermal Energy = 1 Megawatt



On Grid

FireBox Module

Power Module

Cooling Module



On Grid



On Grid





Big Move Towards Battery Powered Machines

Battery Powered Machines

What is their Biggest Question?
•How do I charge my Battery?





Introducing The New PGFireBox Off-Grid

- 1) Power Module
- 2) FireBox Module
- 3) Battery Storage Module
- 4) Cooling Module (optional)

Air Burners Partners

Battery - Rolls Royce
Machines - Volvo



FireBox Module

Power Module

Battery Storage Module



Daytime Charging Battery Storage Module

Off Grid



- Battery Storage Module can be located over 1000 feet away
- Charge chainsaws and handheld tools all day
- Black Start capabilities



Nighttime Charging Vehicles



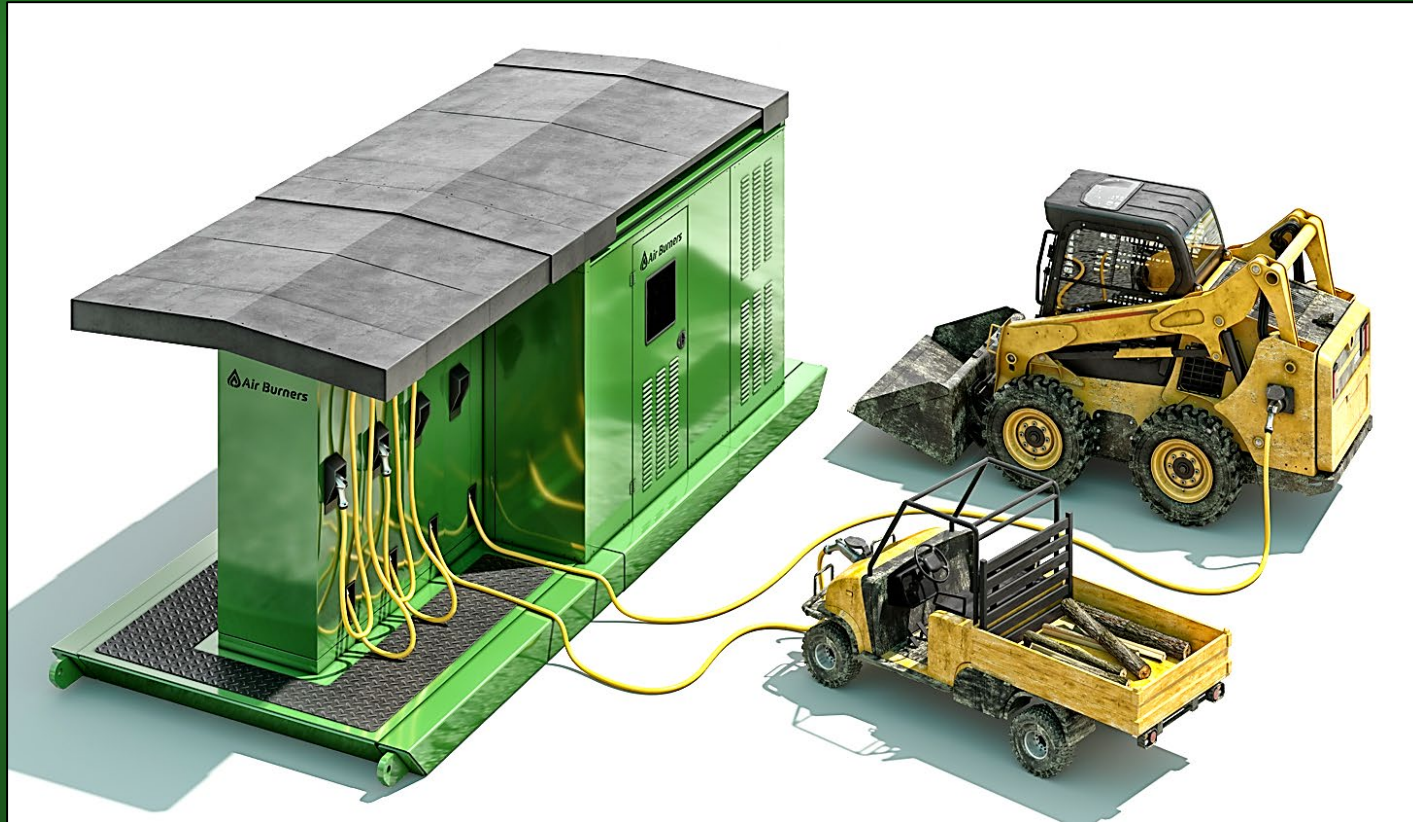
Off Grid



Battery Storage Module



**Battery Storage Module
Does not need to be
located in close proximity
to Power Module**





The New PGFireBox Off-Grid

California demonstration Jan/Feb 2023 Kern County

Air Burners Partners

- Battery - Rolls Royce
- Machines - Volvo
- Site - Kern County





Where are we headed?

Larger Systems

Increased Battery Storage

Automated Biochar production

Hydrogen production onsite





Thermal Energy for Kiln Drying





Biomass Utilization
Eliminate slash
Electric for sawing
Heat for kiln
Biochar for compost



THANK YOU

www.AirBurners.com