



V-Grid Energy Systems, Inc.

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Fundamental Principles of Carbon Negative Electricity



Plants capture CO₂ as they grow, but it is all released when they die

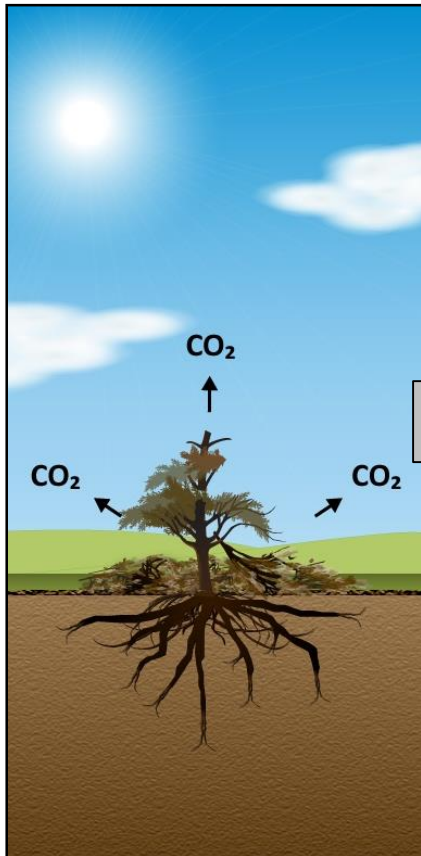
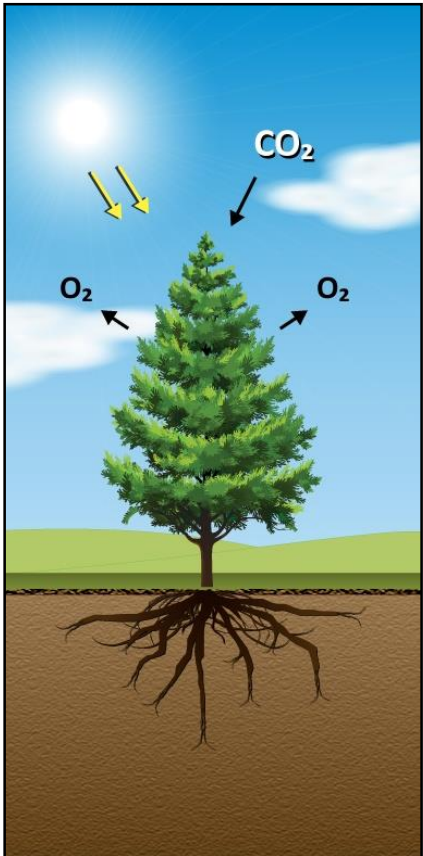
V-Grid can sequester most of this carbon while producing electricity and recharging farm soil

Live Tree

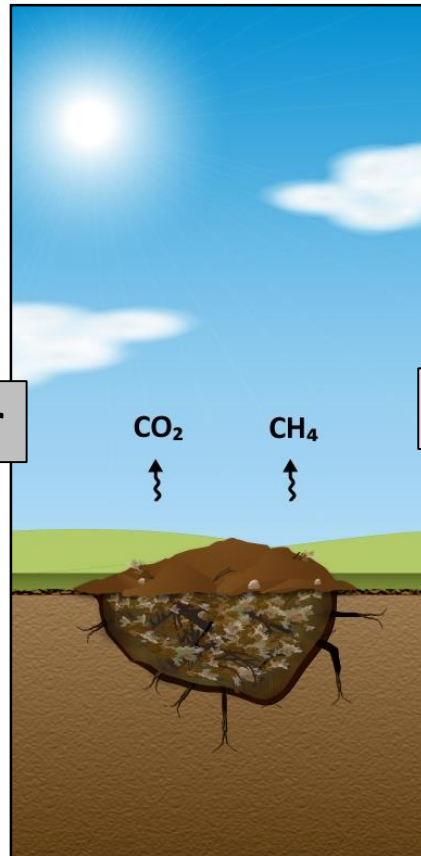
Dead Tree

Buried Tree

Energy

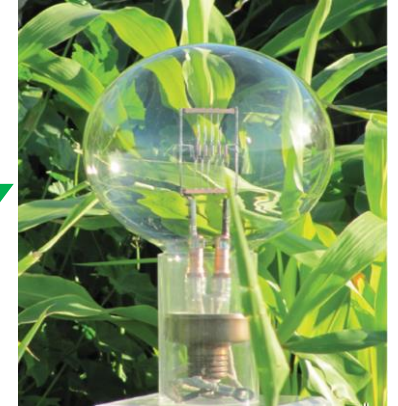


or



or

V-Grid technology



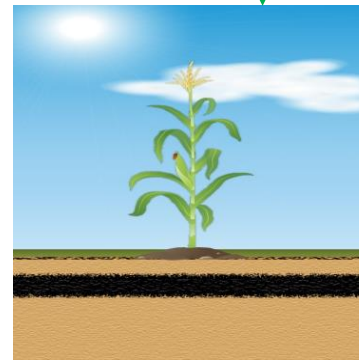
Key Point

Carbon that would be released as CO₂ is sequestered long term as a Biochar soil enhancer to hold nutrients and water to grow more crops

Photosynthesis
CO₂ Absorption in
Sunlight

Decomposing Dead Tree
on the Ground

Decomposing Dead
Tree
Buried Underground



Long term soil carbon
enhancement



V-Grid model 100 Bioenergy server



Process biomass to irrigate crops



Locally sourced biomass fuels



Electricity out

Farm cost of electricity:
\$.04 to \$.06/kWh
with additional soil
upgrade benefits

100kW electricity generator:



Also outputs traditional high nutrient ash from farm feed stock or even more effective biochar which can grow more food with less water.

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Operational third generation prototype shown

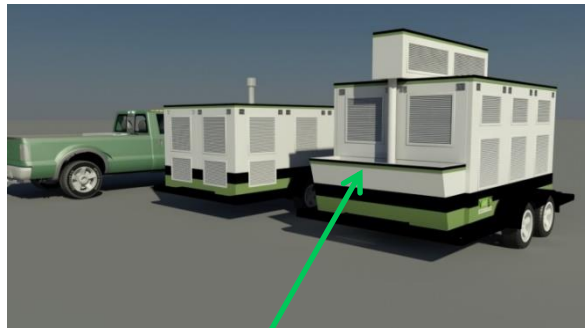
V-Grid model 100 Bioenergy server



Renderings of our first production
100kW bioenergy servers



Two automotive sized trailers
comprised of the gasifier system
and the engine/genset.



Gasifier shown with its on-board
1MWH woodchip hopper.



A single bioenergy server shown next to a typical 80 hp. deep well pump. These pumps are typically placed every 80 acres.



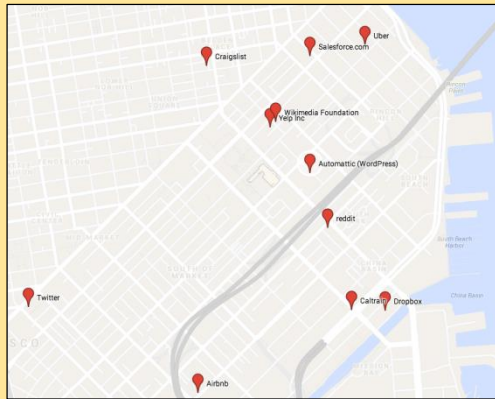
A 500 kW sub-array with a 300 MWH woodchip silo and corresponding output biochar silo.

- Agriculture
 - Tree Farms- Almonds, Walnuts, Pistachio, Citrus, Apples, Palm
 - Vineyards- Table grapes, wine grapes
 - Tall row crops – corn, sorghum, sugar cane, raspberries, blueberries
 - Ag Waste to Biochar conversion
 - Cotton Gin Trash

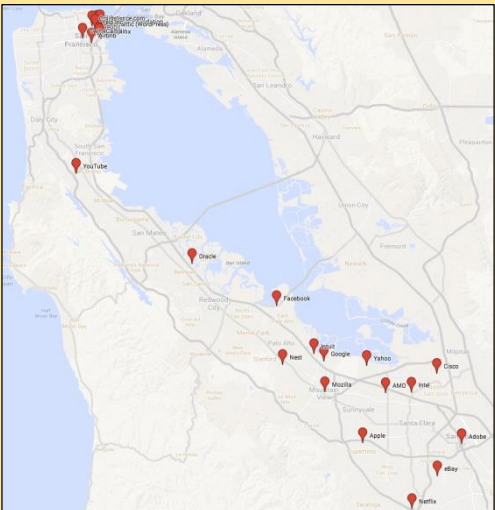
Data Centers need Real Carbon Credits



Major Internet Data Centers



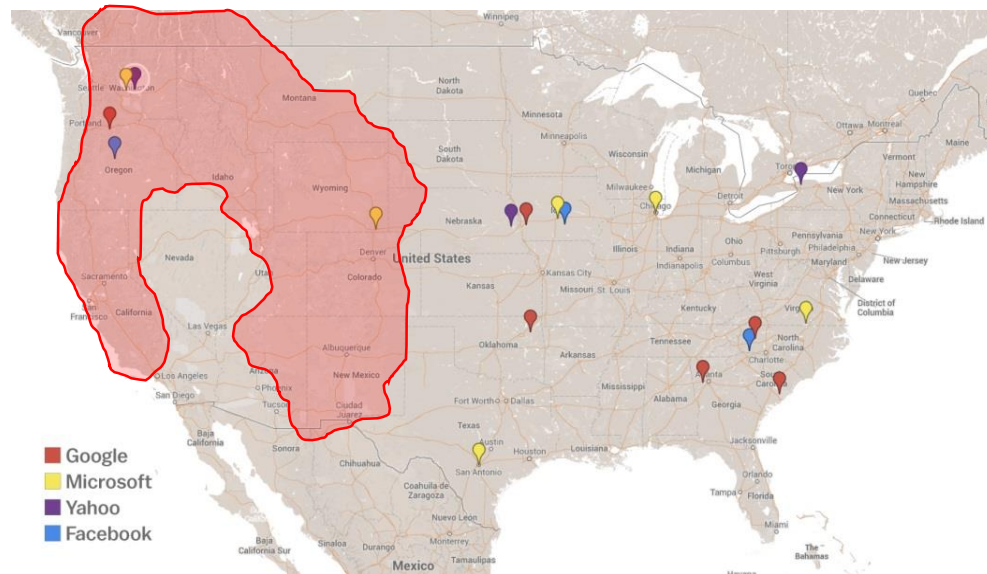
San Francisco



Silicon Valley

- Microsoft and Facebook have committed to 100% renewable electricity for their data centers

Data Centers will consume 140 Billion KWh by 2020



88 million acres of dead trees will release 20-30 Gigatons of carbon dioxide over the next 20 years. V-Grid technology at regional farms can sequester 10 Gigatons of this emission while producing 60 GW continuously for 20 years from this fuel source while forests regenerate.

The promise of Biochar

Grow more with less Validated by World Bank

