Proposal to CalSEED

VrFarms Hydrogen Production

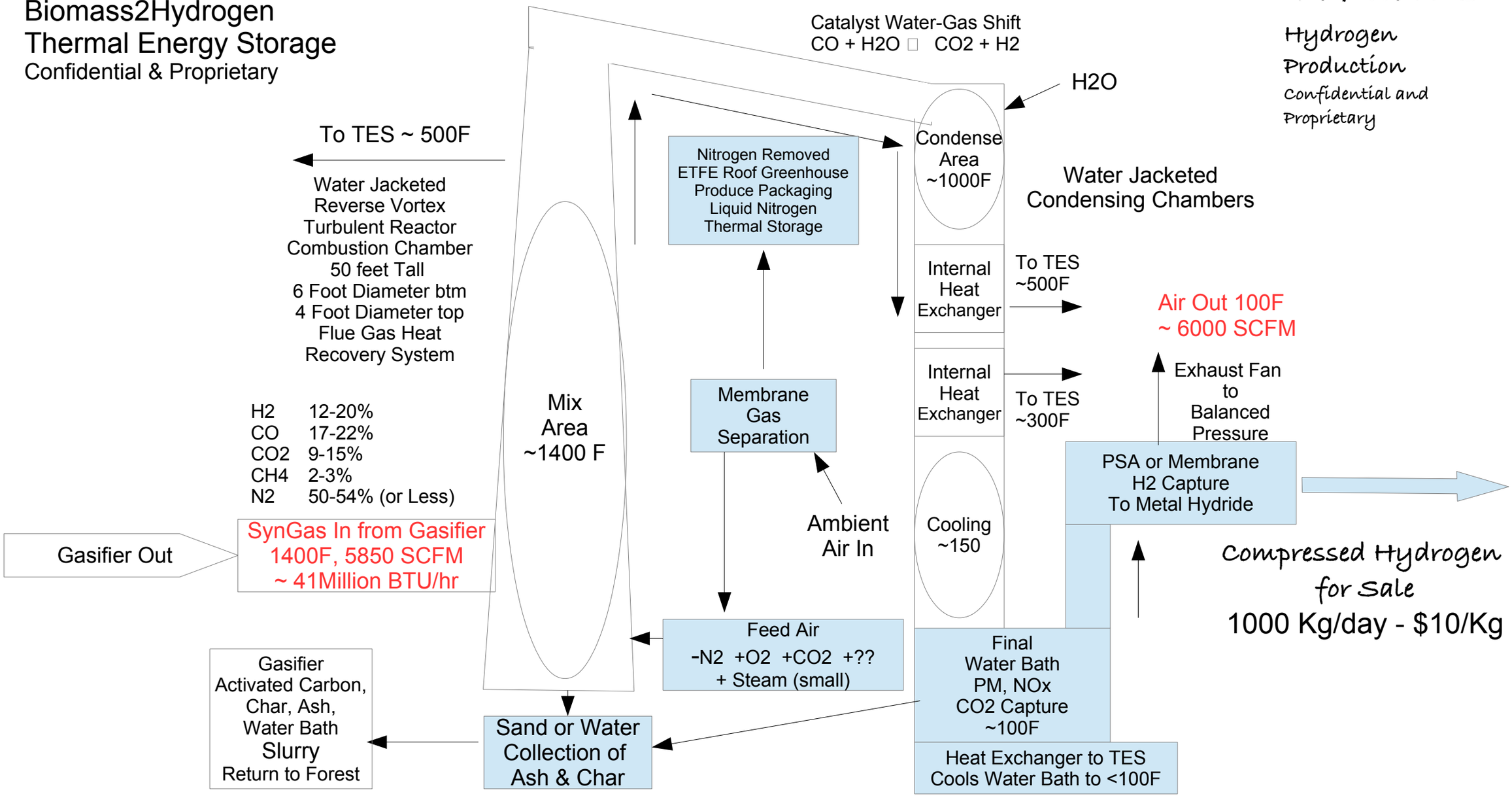
For

Grid Level Battery Storage for Micro-Grids + OFF-GRID EV SuperCharging

Batteries Charged by Stored Compressed Hydrogen from Biomass

VrFarms
Biomass2Hydrogen
Thermal Energy Storage
Confidential & Proprietary

VrFarms
Hydrogen
Production
Confidential and
Proprietary



VrFarms

Hydrogen Production
Confidential and Proprietary

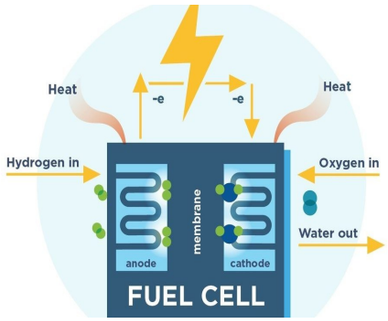
Grid-Less Electricity (no Grid required)
Compressed Hydrogen
Delivered to EV Charging Stations

https://www.hexagonlincoln.com/mobile-pipeline/titan/titan

250 bar Hydrogen Mobile Pipeline
350Kg Hydrogen - $360K

MicroGrid Connected

Hydrogen Converted to
DC Electricity
at EV Charging Station Sites
Grid-less Electricity Delivered

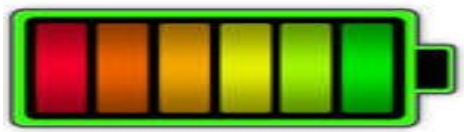


Compressed Hydrogen Delivered

350Kg H2 - 11550 KWh
100 – 50KWh EV Charges
5000 Kwh delivered point A to B
Hydrogen Production Site
to Micro-Grid / EV Charge Station

Hydrogen for Sale
1000 Kg/day - $10/Kg

2 MWH
Battery $1.5M



Hydrogen SuperCharger Network

300 EV Charging Sites
1 Kg Hydrogen = 33 Kwh
Fuel Cell Eff – 50%
2.8 Kg H2 = 50 Kwh Charge
Retail $25 ($6 profit/chg)
$28 cost of Hydrogen
50 Kwh x .18/Kwh = $9
18 cent/Kwh Carbon Credit
18 cent/Kwh PPA BioMAT

Level 3 DC Fast Charging

4 x 250 KW SuperCharger
SOFC /w CHP
$1.5M

EV Charger Kiosk $200K