CARBOROCK

Grow CARBOROCKS

Startup project of carbon negative industry

The objective of this project is to reverse the link between CO_2 emissions and economical growth based on raw material production.This link can be reversed with an industry that has a negative carbon balance.

To achieve this objective, a new industrial ecosystem has been planned.
It is based on the recycling of CO_2 from biomass that is currently sent up into the air and the recycling of industrial waste such as hashes from trash incinerating plants.
This carbon negative industrial ecosystem is inspired by the biggest carbon sink found in the ocean, which is the blooming of coccolithophore.

This industrial system has a Zero Carbon fertilizer production center at its core, it converts hashes from trash incinerating plant and other mine salt residue into specific fertilizer for algae.
The Zero Carbon fertilizer container will be distributed to near-by modern algae farm called microPBR 4D.

This industrial ecosystem is made possible by an innovation in algae culture named microPBR 4D. The microPBR 4D stand for micro-photo-bio-reactor that use light in the 3 dimensions of space plus the time dimension. The microPBR 4D is an innovative technology that allows a conversion of sun light energy into biomass with unprecedented efficiency. MicroPBR also address the energetic balance issue of current micro-algae system by reducing thermal and mechanical energy spending.
It is essentially the association of different technologies found in thermal solar plant, water treatment plant and optic system into one new product.
It integrate solar thermal technology in order to make full use of solar energy and bring a positive energy balance.

There are three main target group aimed at:

1. CO_2 emitting corporation
2. Farmers
3. Public collectivity

CO_2 emitting corporation could own microPBR share as a way to genuinely compensate their CO_2 emission and have a dividend return on their environmental investment.

Farmers could modernize their production tool with microPBR and thus diversify into the energy and high value biomass production sector. It is also a way to treat nitrate pollution and avoid import of raw material used in the farm.

Public collectivity could be interested to cut cost in the waste management process by avoiding hashes transportation, storage and taxing fee.

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