

CLIMATE CHANGE DRIVES MARKET FOR URINE SEPARATING TOILETS

John Perry Barlow has a startup, [Algae Systems](#); and he went to the Cancun Climate Conference to talk about it.

Introducing Algae Systems on Marketplace from [American Public Media](#), reporter Scott Tong summed up the company (7 December, 2010):

*It aspires to take sewage, combine it with sunlight and make fuel.
And, along the way, take carbon dioxide out of the atmosphere.*

Long at the core of CFG has been the idea of successive changes in the “Business-as-Usual” (BaU) configuration of wastewater infrastructure of a city: so that it may generate a perfect fertilizer (PeFe) and — yes, coincidentally — a by-product of crystal-clear water. Once public health in the city has been secured by wastewater infrastructure, the primary purpose of that infrastructure might best be to keep the soil fertile. One particularly promising avenue of innovation is likely to stem from the progressive re-plumbing of households with urine separating toilets (UST). We estimate that Metro Atlanta could recover some 16,600 tonnes of N-based fertilizer from such, with a market value of \$17.8M per annum.

Long at the core too of CFG has been the notion that the urban water and wastewater infrastructure could benefit greatly from the novelty and creativity of entrepreneurs, businesses, and innovators from outside the traditional water sector. At first we thought such would come from the agriculture, fertilizer, or chemical sectors. After all, knowing of the resource-recovery opportunities and benefits arising from the biological residuals of industrially intensive livestock production — in Confined Animal Feeding Operations (CAFOs) — all they would

have to do would be to turn their attention away from CAFOs to CHFOs — cities, that is, or Confined Human Feeding Operations.

Perhaps not. These days, nothing drives business opportunities like the threat of climate change and renewable energy resources. Our recovered CHFO-fertilizer could be put to good use, as John Perry Barlow well knows. We estimate Metro Atlanta could generate 1.7M gallons of CHFO-biofuel with a value at the pump of \$5.1M each year. Barlow is not alone; he is rapidly being joined by other hungry entrepreneurs.

M Bruce Beck