**About the Company**

Aquature Ltd is a UK start-up focussing on decarbonizing wastewater treatment and recovery of chemical products.

We are based in the UK and EU and are backed by AngloAmerican and DeepScienceVentures.

**The Project/Technology**

The Bioelectric refinery converts wastewater directly into hydrogen, caustic and green platform chemicals.

The process is energy positive and carbon – negative, thus decarbonizing the wastewater producing process.

**Our Capabilities**

- Waste-stream Evaluation for energy recovery
- Technology Partner

**Desired Partners**

Industrial wastewater producing industry and treatment plants

- SASOL, SAB
- Rand Water
Aquature

About us

Founded in 2022
UK and EU based

Focus
BioElectric technologies for wastewater treatment and recovery of green chemicals

CoFunded by:
AngloAmerican and DeepscienceVentures

Aquature Ltd (London, UK):
- HQ
- Asset holding
- UK & Global Market

Aquature Technologies B.V. (Antwerp, Belgium):
- EU Market
- Lab facilities
- R&D activities

CoFunded by:
AngloAmerican and DeepscienceVentures
Producing hydrogen at <£1/kg while cleaning wastewater
While producing high-value green chemicals

Abundant
Any type or size of business produces wastewater.

Energy positive
Wastewater contains 7x the energy required to treat it. The process is net energy positive.

Low cost inputs
Overcoming expensive traditional treatments that require costly sludge disposal.

<£1/kg of hydrogen
Hydrogen can be reused in process streams at competitive prices.

90% reduction in GHG emissions
Avoiding emissions of CO₂ and NOₓ.

High value chemicals
Conversion of CO₂ into valuable chemical feedstocks.
Aquature’s modular process benefits:

- 10x smaller
- Flexible integration
- Net energy positive
- Flexible scale-up/down

Bio-Electric Platform Refinery*

**Step 1**
Converts organic waste into:
- CO$_2$
- Hydrogen
- Caustic

**Step 2**
Converts CO$_2$ to green chemicals:
- Methanol
- Acetic acid
- Ethanol

For 1m$^3$ Waste-water

- 5kg Green hydrogen
- 56kg CO$_2$ / Green chemicals
- 24kg Caustic soda
- Treated water
A modular next-generation energy recovery system

Microbial electrolysis
- Anode
- Cathode
- CO₂
- Membrane
- Biofilm
- Caustic
- H₂

Electro-fermentation
- Anode
- Cathode
- Biofilm
- Membrane
- Green Chemicals

Can be sequestered.
For conversion to other carbon-based compounds.
Clean Fuel from Liquid Waste

Contact

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