

Token-Catalyst Concept: A New Type of Energy-Backed Digital Asset

Core Formula

Catalyst = Token – Capital Savings + Ability to Produce Hydrogen + Ability to Generate Kilowatt-Hours = Materialized (Stored) Electricity

1. Concept Overview

The token-catalyst is a digital asset backed not by stored energy but by the potential to produce it via hydrogen. It embodies dynamic value: the ability to convert access to renewable energy into tangible energy units.

The catalyst is a physical or technical system capable of generating hydrogen and electricity. The token is backed by the catalyst's capability, not by the energy already produced.

2. Initial Function

- Demonstration system is for validating the catalyst's ability only.
- Demonstrator is not collateral, the catalyst is.
- Token acts as a reliable, liquid asset backed by physical potential.
- No dependency on produced energy volume.

3. Backing Components

| Component | Description |
|-------------------------|--|
| Electrolysis Capability | Power capacity assessment for H ₂ production (kWh/kg) |
| Generation Potential | Available power/energy indicators |
| Energy Source | Certified RES (wind/solar/geothermal) |
| IoT/Reporting | Telemetry, production/consumption reports |