



# Reliable, Resilient & Affordable Energy Backup Solutions



## Improved Network Resilience

Phinergy's solutions offer longer-duration backup energy and incorporate advanced network smart management, enhancing the overall resilience of the network.



## Cost Savings

Significant savings compared to common energy backup alternatives.



## Positive ESG Impact

With zero greenhouse gas emissions and the utilization of sustainable resources, Phinergy supports Telecom operators' ESG goals as well as developing a promising solution to Data Centers.



## Back-up Power Supply for Telecommunications

Telecommunication sites require a reliable back-up power supply in case of power failures so that the availability of public communication systems is guaranteed at all times.

## The Solution: Aluminum-Air Hybrid Backup Energy

Energy Backup, as Solid as Metal



## Back-up Power Supply for Data Centers

A Clean Alternative to Diesel Generators

Total addressable backup power market for data centers (2024 - 2035) is circa. 240GW = \$260B

Target Market:



- Aluminum-Air containerized MW-Scale design for data centers
- Cost parity at scale with Diesel generators
- Ongoing collaboration with U.S cloud computing giant (one of the above)
- Zero emissions - Scope 1 & Scope 2
- Simple logistics - Solid, inert, safe



# Leading the Aluminum-Air Clean Energy Revolution

## Technology Main Benefits

Phinergy has developed metal-air technology, turning aluminum into a new way to store, transport, and generate clean and safe energy.



### Abundant

Aluminum:  
8% of earth's crust



### Low Cost

Significant cost savings  
vs. alternatives



### Clean

ZERO Emissions-  
CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>



### Recyclable

Aluminum-  
fully recyclable material



### Energy Density

~4kWh per kg

## ALUMINUM-AIR

Aluminum > Clean and affordable "Fuel".

- Aluminum is a fully recyclable and reusable energy carrier that can be produced using hydroelectric power.
- Phinergy's aluminum-air technology releases the abundant energy contained in aluminum, resulting in a clean, safe, cost-efficient energy solution.
- Aluminum's production and use as energy carrier creates a sustainable circular value chain.

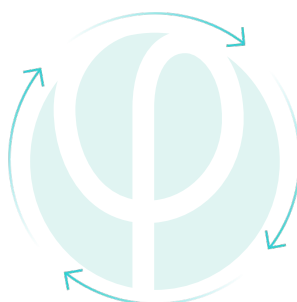
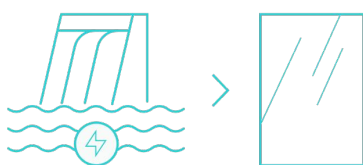


### 2. Energy is transported

Aluminium is transported across the world

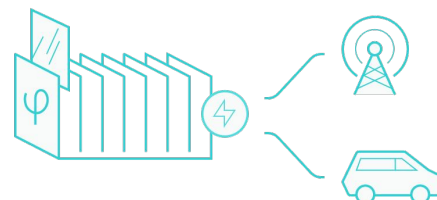
### 1. Energy is stored

Electricity is "injected" into aluminum (electrolysis)



### 3. Energy is generated

Phinergy's technology releases electricity contained in aluminum



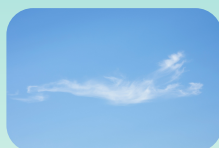
### 4. Aluminum is recycled

Aluminum byproduct is recycled

## 100% SUSTAINABLE



Circular Economy



Scopes 1 and 2 -  
Zero Emissions



Scope 3 - Aluminum  
from Hydroelectricity



Non Depleting  
Resources