

# Energyhubs: Just the essentials or Breakthrough towards Net-Zero?

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## What are Energyhubs?

An energy hub is a localized, coordinated system for generating, consuming, storing, and converting different energy carriers, often within a specific area or industrial park. It aims to optimize energy flows and enhance efficiency by allowing multiple parties to interact and share energy resources. In the Netherlands, energy hubs are increasingly used for capacity pooling, where businesses collectively manage their grid connections to secure more capacity than they could individually.

Such an Energyhub has been in development since 2021 in businesspark De Waterlaet. The realisation of this Energyhub has come far since then, though it faces an important challenge towards exploitation: how ambitious will De Waterlaet be? Will the sole purpose of the hub be to service the basic need of the members or will it be a one-stop-shop for Net-Zero activities in the region, creating a futuristic energy-sharing landscape for the entire area?

What are the wishes of the participants?

### KOP Energy – Core Responsibilities

- Acts as single point of contact with grid operator (Enexis)
- Handles contract details, capacity alerts & energy questions for members
- Shares Energy Hub knowledge and supports collective strategy

### New Member Integration

- Admitted via member vote, with entry fee & equal terms
- Attracted through personal contact, media & clear proposals
- Only investing members receive full benefits
- Landlord restrictions can block entry

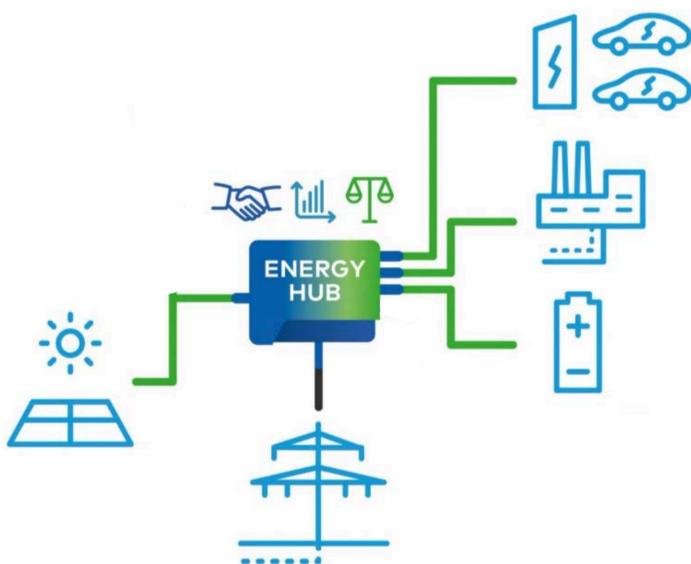
### Building a Future-Proof Hub

- Long-term goal: a self-sufficient, democratically run business park
- Trust, clear roles & minimal overhead communication
- Surplus energy traded; profits reinvested
- Transparent finances & quarterly updates for members
- Hub coordinator = key link between members and institutions

### External Challenges & Risks

- KOP negotiates capacity and terms with Enexis
- Enexis can cut capacity after 3 years — major risk
- Exit of large members harms peak shaving
- Local rules or conflicts over suppliers may destabilise the hub
- Strong coordination & transparent governance are essential

## Energyhub: Just the basics



### Operational Focus

Priority is on relieving members of administrative burdens, with minimal additional activities.

### Organisational Support & Strategy

- The energy system remains functional; members no longer receive letters from grid operator Enexis.
- Communication is minimal — meetings are only held when problems arise.

### Membership & Growth

- The number of members remains stable.
- New members will not be admitted unless peak shaving requires additional capacity.

### Governance & Decision-Making

- Decisions are made through voting rounds.
- Each member has an equal vote — no weighting based on investment or size.

### Sustainability & Investment

- Members are individually responsible for investments in sustainable solutions — no central coordination.

### Financial & Communication Structure

- A monthly invoice is sent, listing general cost categories defined by Energy Freedom — no detailed breakdowns are provided.
- Communication methods remain unchanged.

### Hub Management & Energy Use

- The hub coordinator remains the same.
- No energy trading occurs — there is no profit model behind the Energy Hub.
- The pricing structure is set by the EMS.

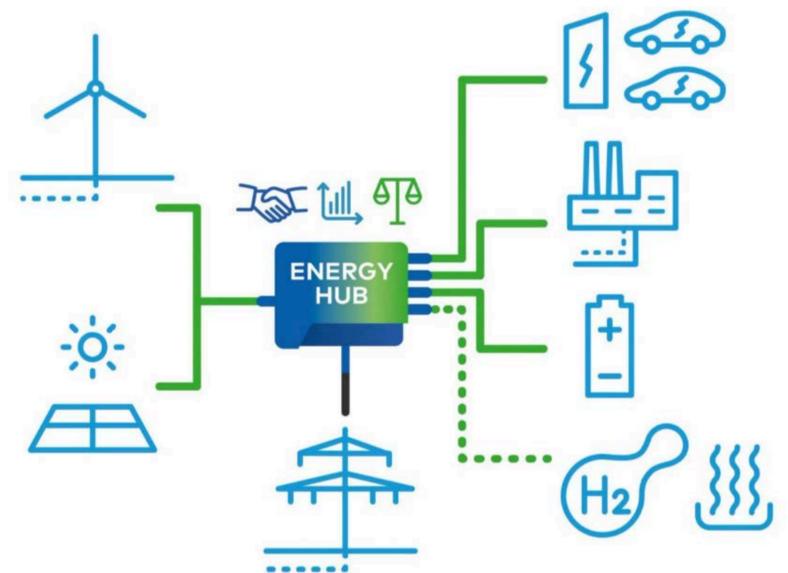
### Contracts & Negotiation

- The current contract model remains in place.
- No negotiations with Enexis for increased capacity.
- The Hub's potential collective advantage is not used to negotiate better rates with energy suppliers.

### Risk Management

- Risks are not further assessed or mitigated beyond what is already in place, even if members request it.

## Energyhub: towards Net-Zero



### KOP Energy & the Waterlaet Energy Hub

A collaborative model for sustainable and self-sufficient energy solutions.

### Organisational Support & Strategy

- KOP Energy relieves local businesses of energy-related responsibilities — members no longer receive correspondence from grid operator Enexis.
- Members access online resources to learn about the Energy Hub's operations.
- Strategic and financial meetings are held every 4–6 weeks.

### Membership & Governance

- KOP Energy recruits new members via outreach events, business visits, and tailored participation scenarios.
- New members are admitted through a voting process; those unable to invest are only accepted if they provide added value.
- Voting power is based on invested capital; all decisions are made democratically.
- The Energy Hub aims to be fully self-sufficient by 2040.

### Planning & Development

- Long-term strategic plans are developed jointly with technical partners and tailored to member needs.
- Agreements and plans are reviewed annually.
- KOP Energy facilitates internal sustainability improvements for member businesses by involving technical experts as needed.

### Financial Transparency & Green Investments)

- Detailed financial reports are presented monthly.
- Surplus energy is sold on the Day-Ahead market; profits go into an investment fund for local green energy projects.
- A digital portal will visualise all energy flows; quarterly reports provide insight into profits.

### Knowledge Sharing & Continuity

- Agreements made by the hub coordinator are recorded in an online system.
- The hub coordinator's network is documented within KOP Energy and made accessible to future coordinators.
- Continuous knowledge exchange occurs between different Energy Hubs.

### Non-Profit Structure & Compensation

- KOP Energy will operate as a non-profit managing investments in Energy Hubs.
- The pricing model is based on member investments, with fair compensation provided in return.

### Collective Negotiation Power

- KOP Energy leverages the combined influence of multiple Energy Hubs to negotiate better contracts with grid operators.
- The goal is to secure increased capacity and improved contractual conditions.
- Growth in collective capacity is driven by attracting new members; Net Zero goals encourage businesses to remain engaged.



## References

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