



Simple & smart

The self-learning all-in-one energy system for residential, commercial and industrial applications

Lynus tenant electricity

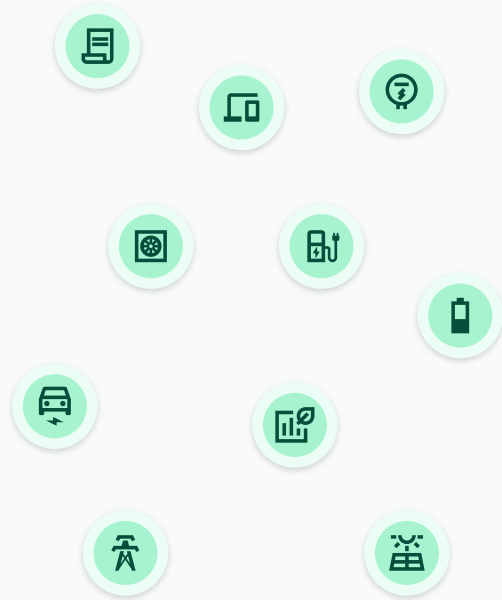


Motivation

Problem

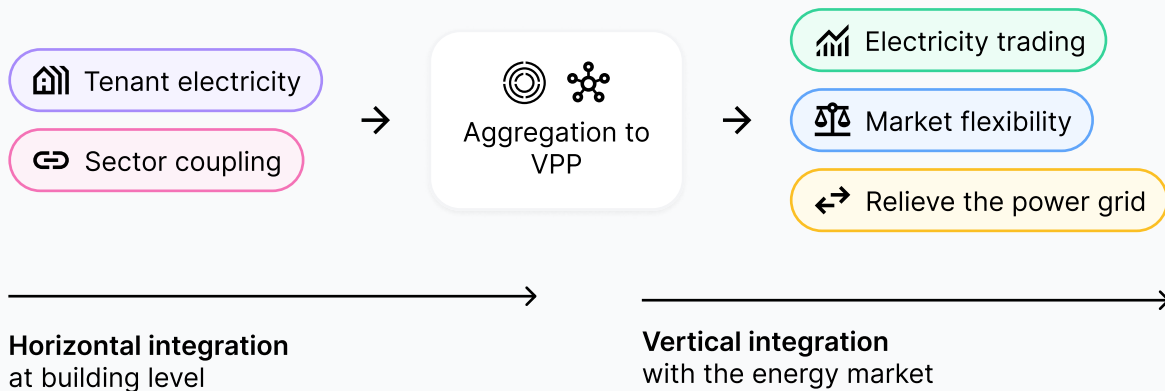
The energy transition in buildings and companies is often not considered holistically.

Decentralized energy systems act in isolation and uncoordinated. Grid utilization and market signals are not taken into account.







Solution

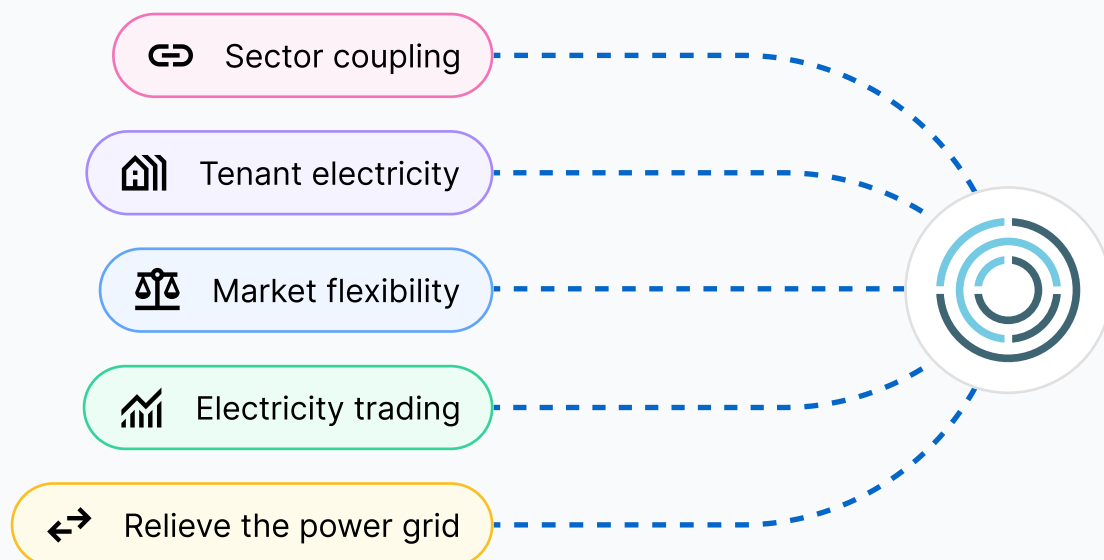
Horizontal integration at building level,
Vertical integration with the energy market.



The Lynus approach

Features → Benefits

-  Software & hardware from a single source → Smooth installation & function
-  Integrated energy management → Optimal use of PV electricity
- (.*)** Integrated machine learning → Individual optimization of energy flows
-  Integrated monitoring → Transparent monitoring
-  Start-up wizard → Quick & easy installation



Tenant electricity model

The tenant electricity model brings the energy transition to apartment buildings. It enables self-generated solar power to be made available to various tenants and billed automatically.



← Scan for explanatory video



Sector coupling

At building level, sector coupling means that all relevant systems are networked in order to provide and use energy optimally.

The result: higher profitability of the individual PV system and greater self-sufficiency.



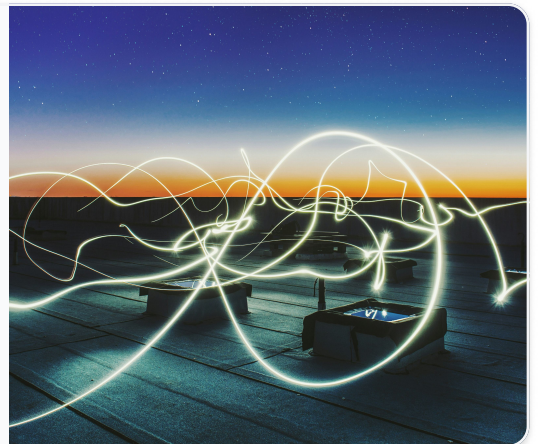
Tenant electricity model

The tenant electricity model enables the shared use of self-generated solar power with automated billing for individual residential units. Integration is simple, including a tenant electricity surcharge option.



Electricity trading

The systems pooled in the virtual power plant can sell electricity automatically through Lynus. Market prices, production and user behavior are taken into account. The advantage: additional income for system owners.







Market flexibility

To ensure the stability of the transmission grid, the Lynus virtual power plant balances out under- and overproduction. Lynus customers benefit financially from the flexibility provided without any negative impact on their own system.




Tenant electricity packages



←
Request a quote

	 Self-Service	 Full-Service	 Contracting
PV system incl. batteries	✓	✓	✓
Energy management system	✓	✓	✓
Counter infrastructure	✓	✓	✓
PV electricity billing	✓	✓	✓
Grid electricity billing	✓	✓	✓
Debt collection service	✗	✓	✓
Monthly transfer of income	✗	✓	✓
Financed by Lynus	✗	✗	✓
Lynus operates the PV system	✗	✗	✓
Roof rent / profit sharing	✗	✗	✓


Lynus tenant electricity contracting includes




PV system incl. batteries




Energy management system




Counter infrastructure



E-charging station infrastructure



Heat pump, CHP, etc.



Financing, construction, operation, billing etc.

High economic efficiency

Investments in photovoltaic systems in apartment buildings are long-term and secure capital investments. Tenants receive the low-cost solar power for years, and both system operators and tenants benefit. The project term is 30 years. A roof lease amounting to 2.0% of the investment per year is already included.

Description	Koblenz 12 MFH	Köln 6 MFH	Rüsselsheim 50 MFH
Investment	105.000€	60.000€	450.000€
Interest on borrowed capital	4,0%	4,0%	4,0%
Duration	20 Jahre	20 Jahre	20 Jahre
Equity ratio	30%	30%	30%
Average profit per year (EBT)	8.400€	4.400€	72.300€
Return on equity	26,8%	24,6%	53,6%
Return on debt	11,5%	10,5%	23,0%
Total return on investment	8,0%	7,4%	16,1%

Planning

Profitability

Order

Enter easement in the land register

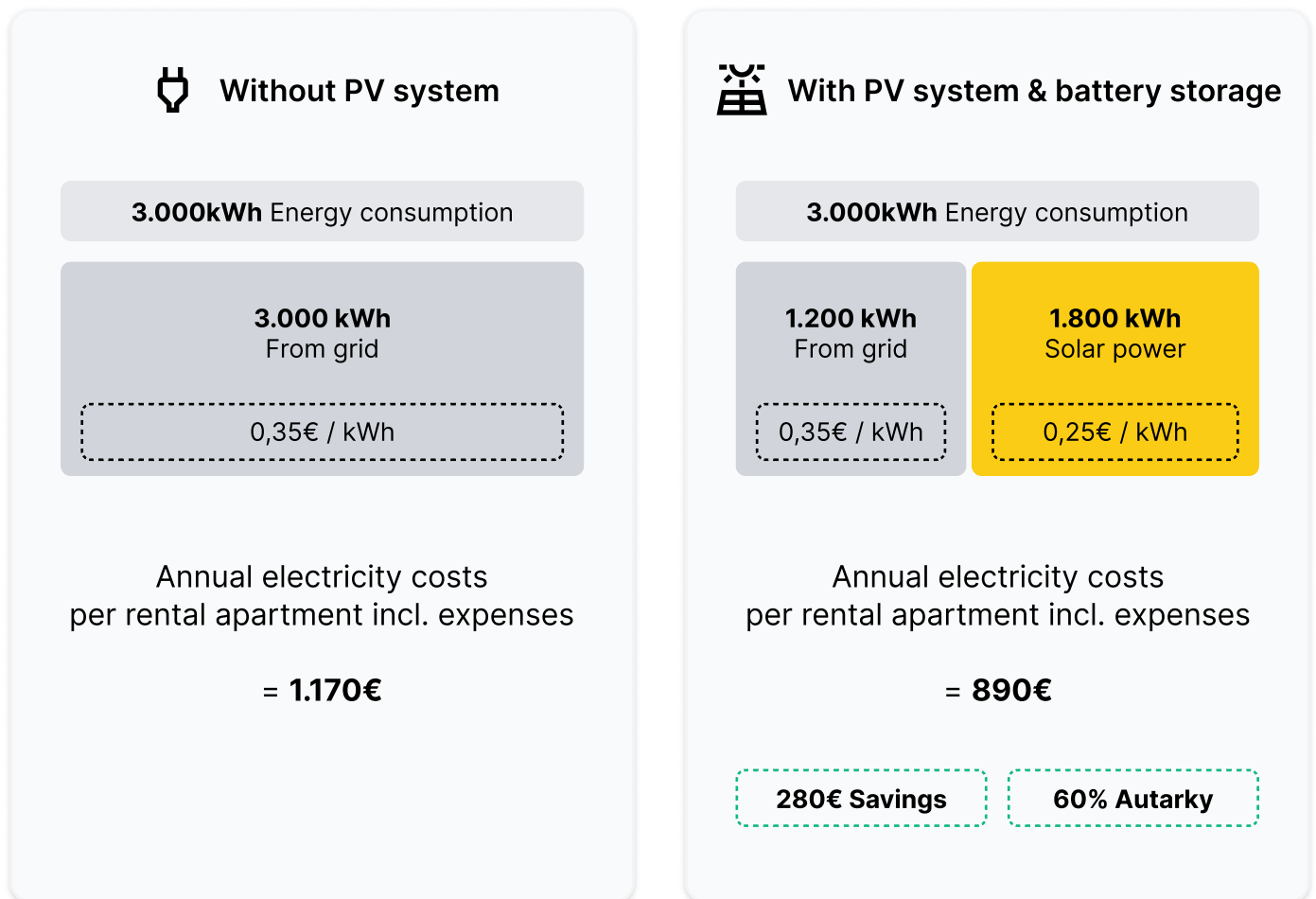
Assembly

Start operation

Start monthly billing

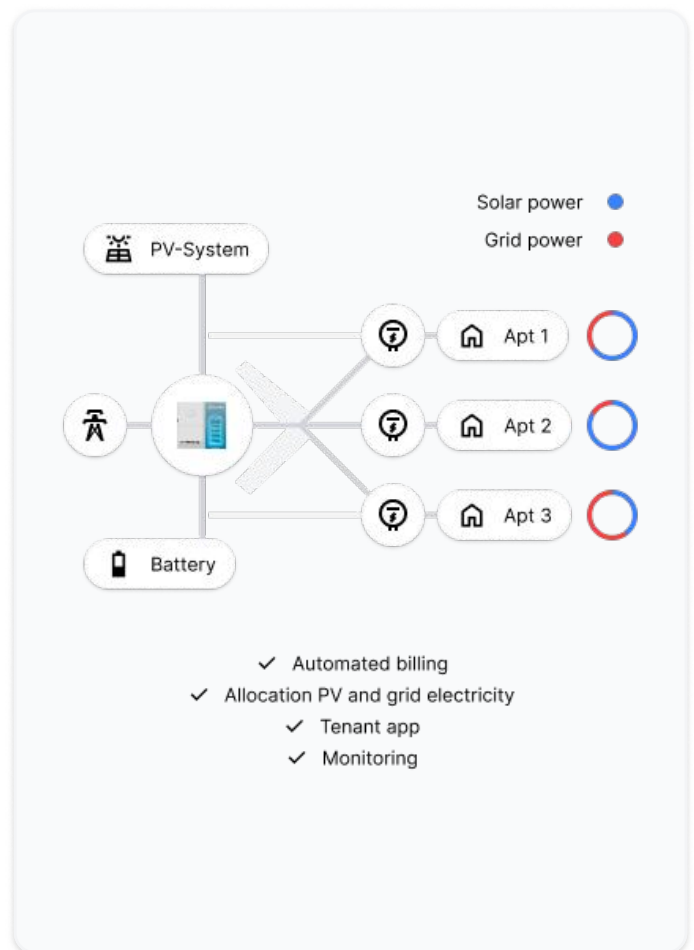
The sun doesn't send a bill

In Central Europe, the annual global radiation ranges between 900 to 1,200 kWh/m². Photovoltaic (PV) modules convert this solar radiation into electrical energy. The generated electricity can be used immediately within the building, stored in batteries for later use, or excess electricity can be purchased from the grid when solar power is insufficient. This approach optimizes the use of renewable energy and reduces reliance on external power sources.



Tenant electricity or feed-in with EEG

A tenant electricity model enables the landlord to achieve a higher price for the electricity he produces than if it were fed into the grid in accordance with the EEG. If the electricity is sold directly to the tenants, a higher return can be achieved. This is also an advantage for the tenants. Surplus electricity that is not consumed locally can still be fed into the public grid, which generates additional income (remunerated under the EEG).

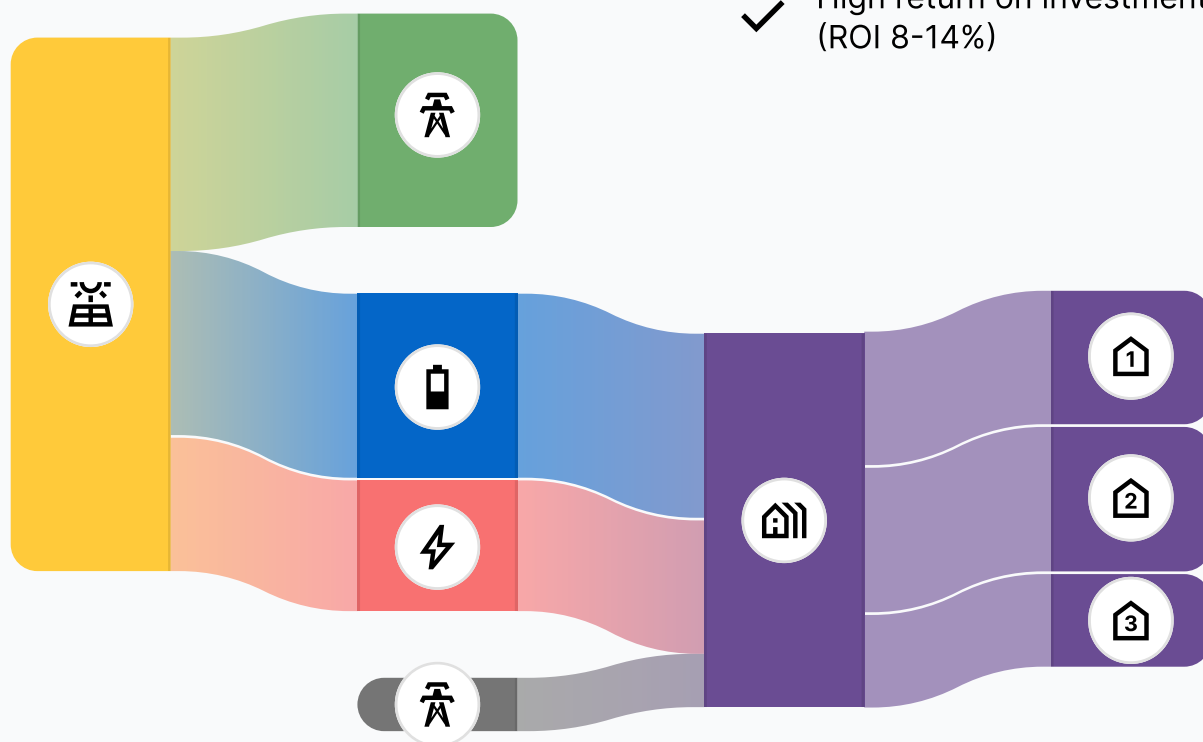



Energy flow in a MFH

For each apartment, it is possible to determine precisely how much PV electricity and grid electricity is consumed, which creates the basis for precise and individual consumption billing.


Monthly view

- ✓ approx. 300€ savings per rental apartment and year
- ✓ High return on investment (ROI 8-14%)




 **79%** Solar energy
21% Grid

Apartment 1

 **84%** Solar energy
16% Grid

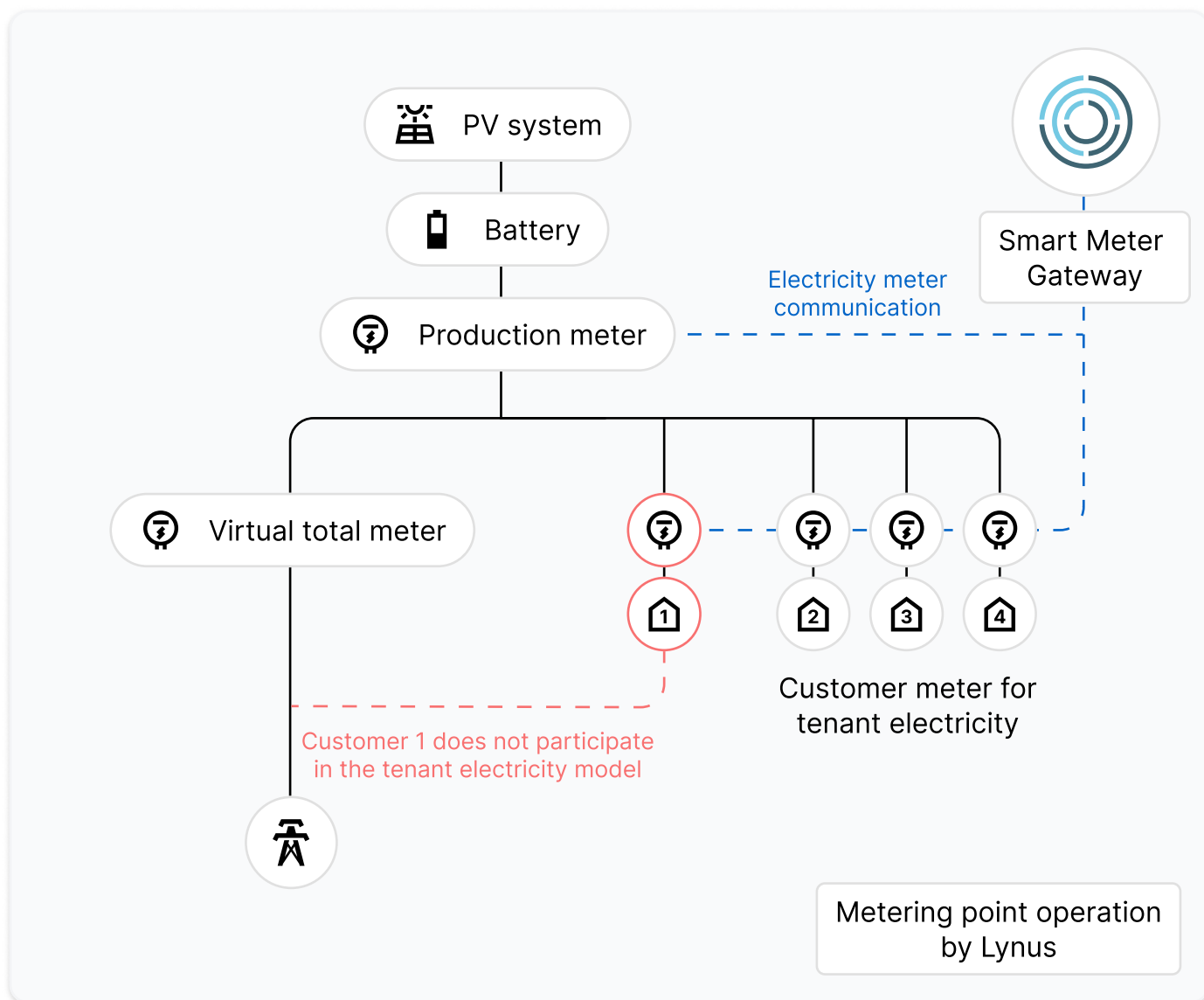
Apartment 2

 **44%** Solar energy
56% Grid

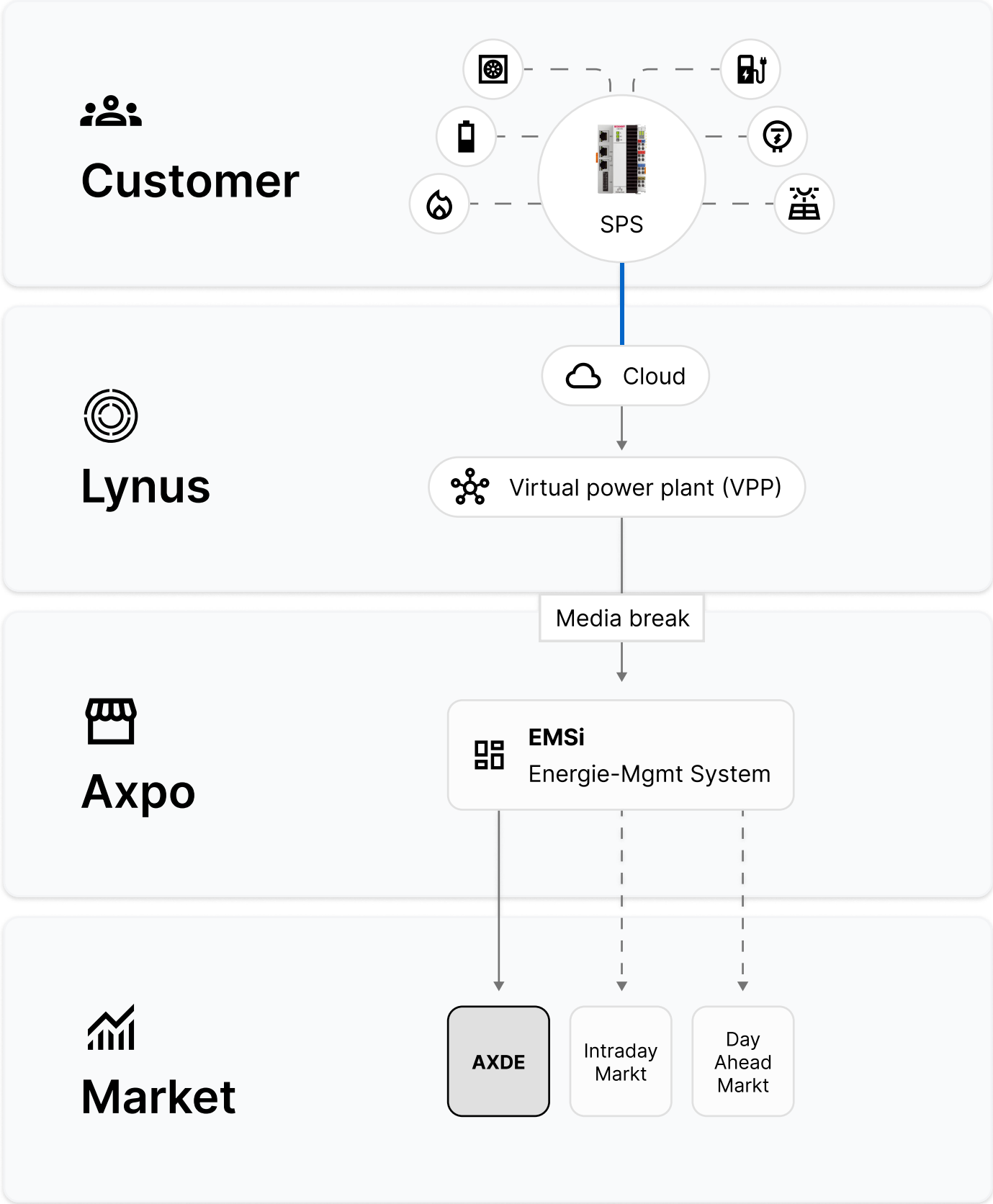
Apartment 3

Tenant electricity with virtual total meter

For properties with existing meter cabinets, the setup with a virtual totalizer is a good option. The customer meters are mathematically bundled. If a tenant opts out of the tenant electricity model, the meter data is forwarded to the balance sheet.



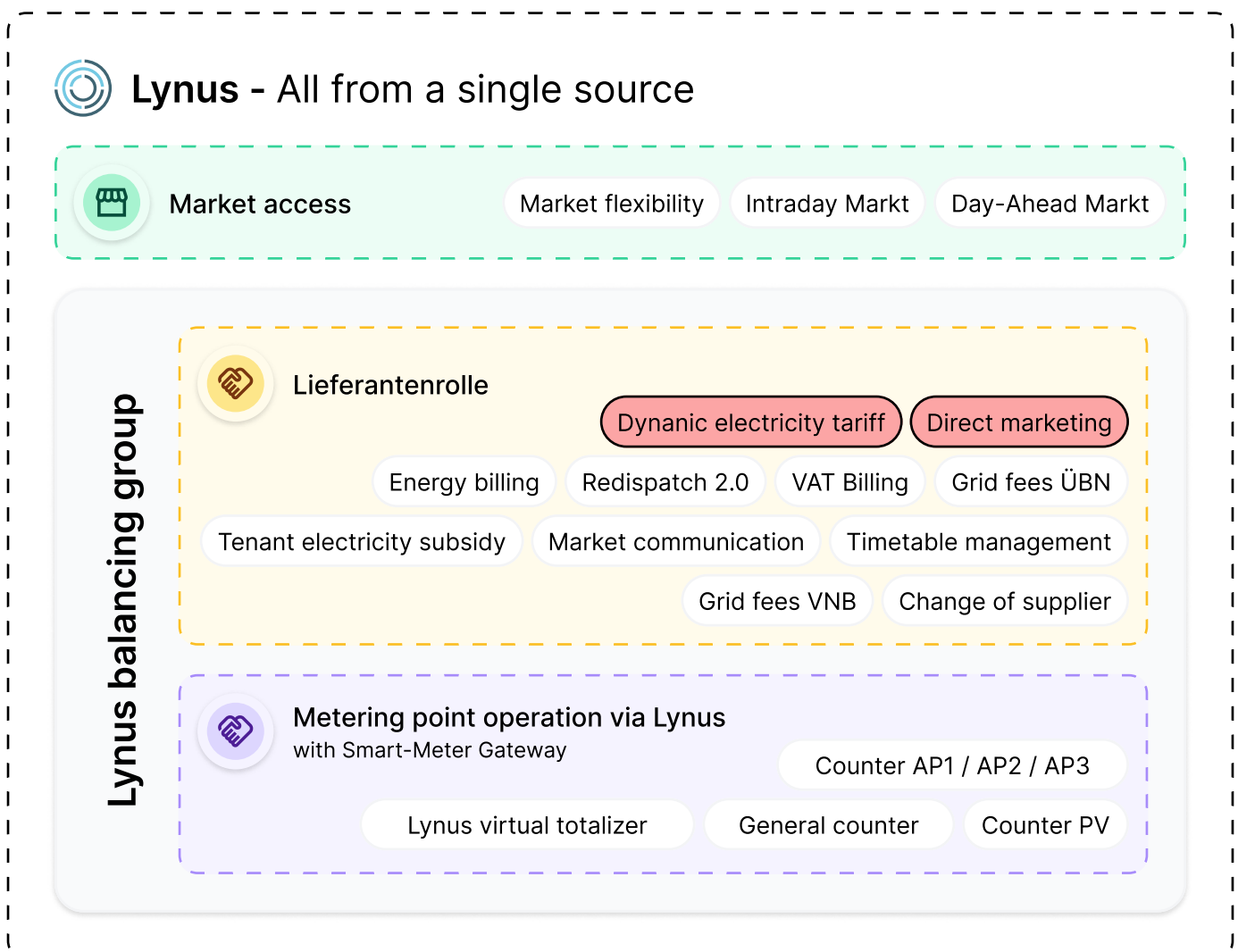
Roles in the energy market



Processes in the energy market & tenant electricity

The advantages of the measuring concept with virtual totalizer:

- No need for transformer measurement
- Standard meter cabinet system as in a normal MFH
- Tenants can switch into or out of the tenant electricity model online which is handled via the Lynus supplier role.



What do we need for a tenant electricity project?

1. Bidding phase

- Address
- Number of apartments
- Size of PV system
- General electricity?
- Power consumption

2. Detailed planning

- PV planning
- Measurement concept
- Plan switch cabinet
- Specifications for measuring point operation

3. Lynus delivers

- PV modules incl. substructure
- Charger Infrastructure
- Inverters & batteries
- Meter cabinets
- Electricity meter & smart meter gateway

4. Realization

- Mounting PV modules & substructure
- Mounting inverters & batteries
- Meter installation

5. System startup



- IBN Energy system

6. Communication of all tenant data by the client

- Name
- Address
- Mail & Phone

7. Start-up of tenant electricity model



- Tenant electricity model
- Quick & easy startup

8. Operation

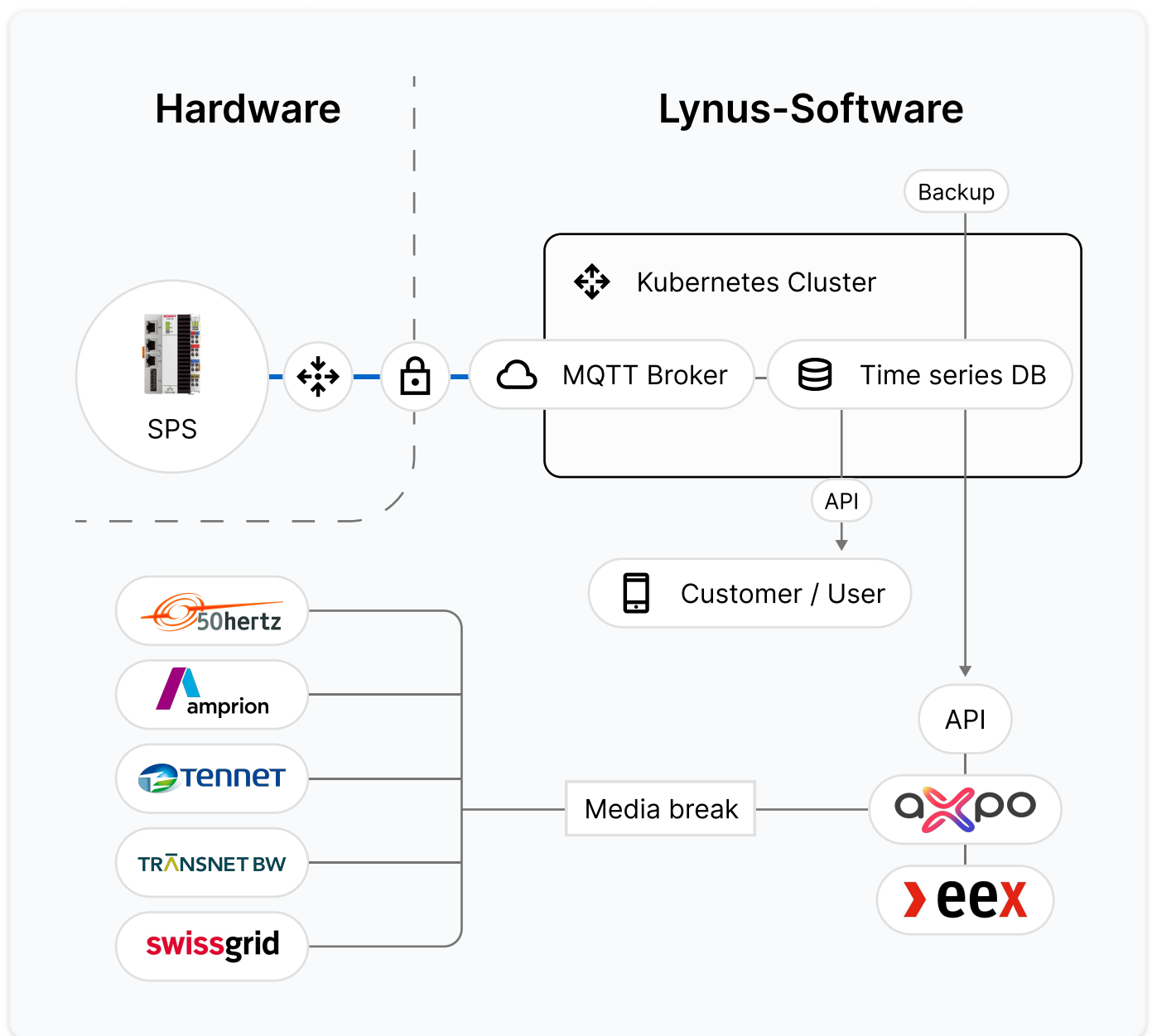
- Tenant electricity billing
- Electricity marketing
- Dynamic electricity tariff
- Flexibility marketing

9. Billing



Cloud architecture

The SPS transmits data to the MQTT broker. This data is stored and processed in a database. This data can then be retrieved (via an API) and visualized in various display formats such as diagrams.





We are near you!

We will be happy to answer any further questions you may have. Simply contact us by telephone or e-mail if we have aroused your interest or if you would like further information.



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