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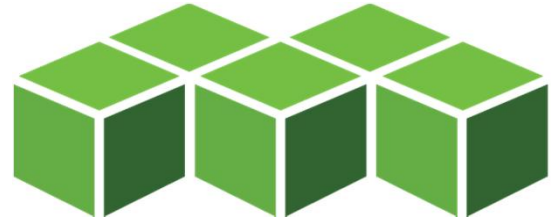


***Mobilization of innovative
design tools for refurbishing
of buildings at district level
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ertex solar / Austria

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**Building renovation at a district level –
two case studies from Vienna**

AND

**StromBIZ –
business models for PV power**



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Eine Publikation der
MA 20 – Energieplanung

THEMA

SMART BLOCK GEMEINSAM BESSER SANIEREN

DEZEMBER 2015

2 DEMO-SITES



Abbildung: Luftbild, www.wien.gv.at/stadtplan -



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Blocksanierung Neubaugürtel (BSN)

Wohnpark Ottakring (WPO)



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Regulations against an energy efficient refurbishment

Original Austrian Law:	rough translation:
Elektrizitätswirtschafts- und Organisationsgesetz (EIWOG)	electricity industry and organization law
Mietrechtsgesetz (MRG)	Law of tenancy
Wohnungseigentumsgesetz (WEG)	Law about ownership of residential apartments
Wohnungsgemeinnützigkeitsgesetz (WGG)	non-profit housing act
Heizkostenabrechnungsgesetz	heat cost billing law
und weitere Rechtsmaterien	and others



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Important aspects from the report

communication and information

who will renovate how much and when

who will invest - who will get the benefit

focus on architectural point of view

no resources for consultant and engineering offices

stove heating systems versus district heating

Positive result from other areas

Specialists in protection of historic buildings and monuments

Initiative of “Traumhaus - Althaus” → dreams house – old house



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Procurement

Savings between 6-10% are possible

energy performance assessment tools

very rough tools to precise tools are available

software is not the biggest issue – more the available input data



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Berlin Project:

„ **Berlin, Lichtenberg** “ energy saving block renovation

Swiss Project:

„ **2000 Watt Gesellschaft**“ means 2000 Watt Society,
considers mobility grey energy,...

Amsterdam Projects:

- „**hieropgewekt**“ combines individual consumption with production and finance.
- „**city-zen**“ coordinates 23 Partner-Cities reg. Zero energy buildings, sustainable traffic, intelligent Parking systems, Car-Sharing and renewable energy

Hamburg Project:

„**Energiebunker**“ ist included in the climate protection project „Erneuerbares Wilhelmsburg“

StromBIZ



IBW



ENERGIE
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EVN

Identification of business models without subsidies

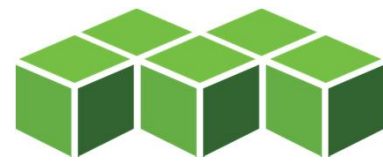
Models with higher self consumption = 20 ¢/kWh savings

Models with PV-consumption in flats (not possible right now)

Combination of economical, technically, energy, tenancy, consumer

Feasibility of the business models

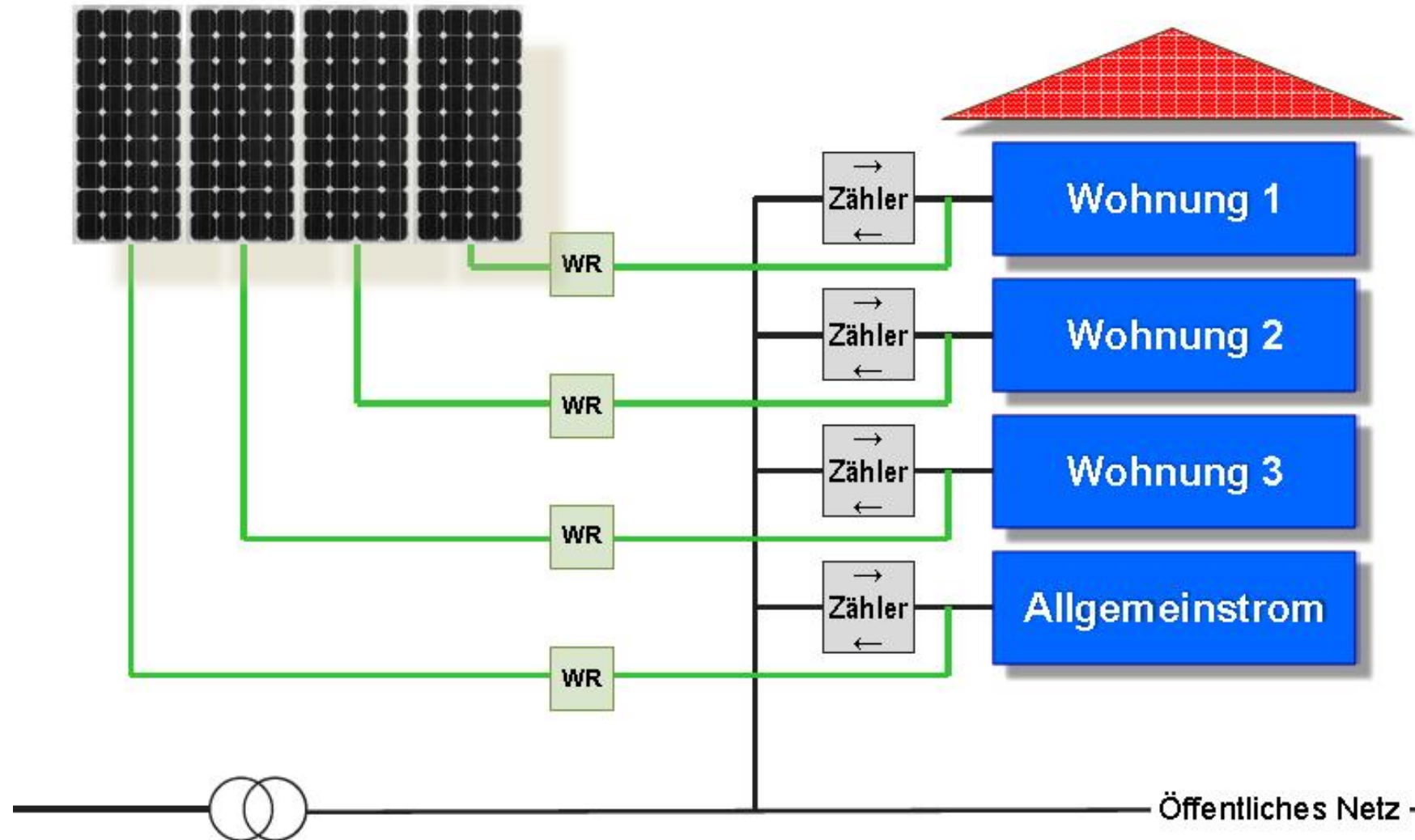
Suggestions for legal changes for effective models



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Geschäftsmodell „Neubau Grünes Wohnen“

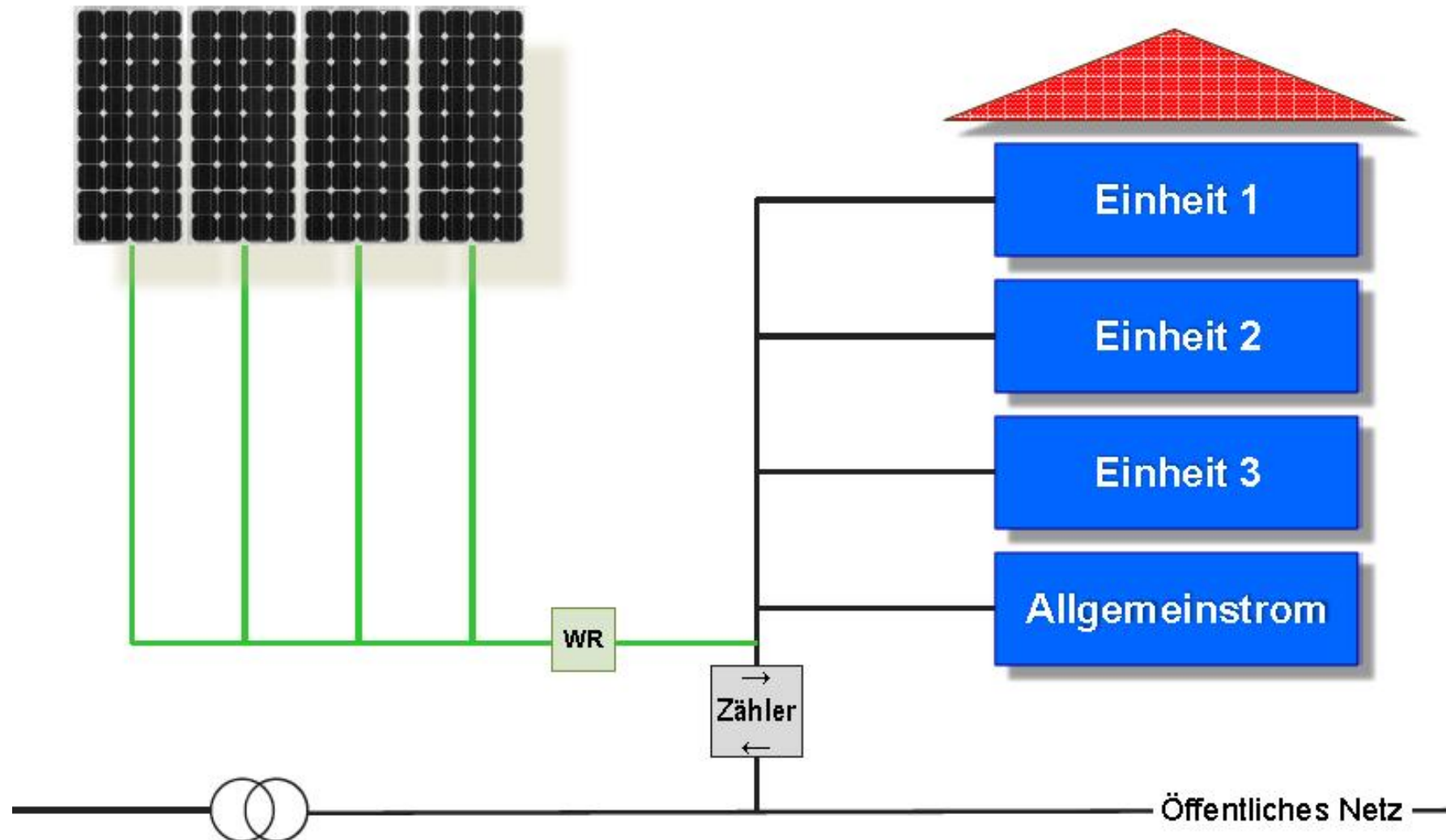




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Geschäftsmodell „Pauschaler Nutzungsvertrag“

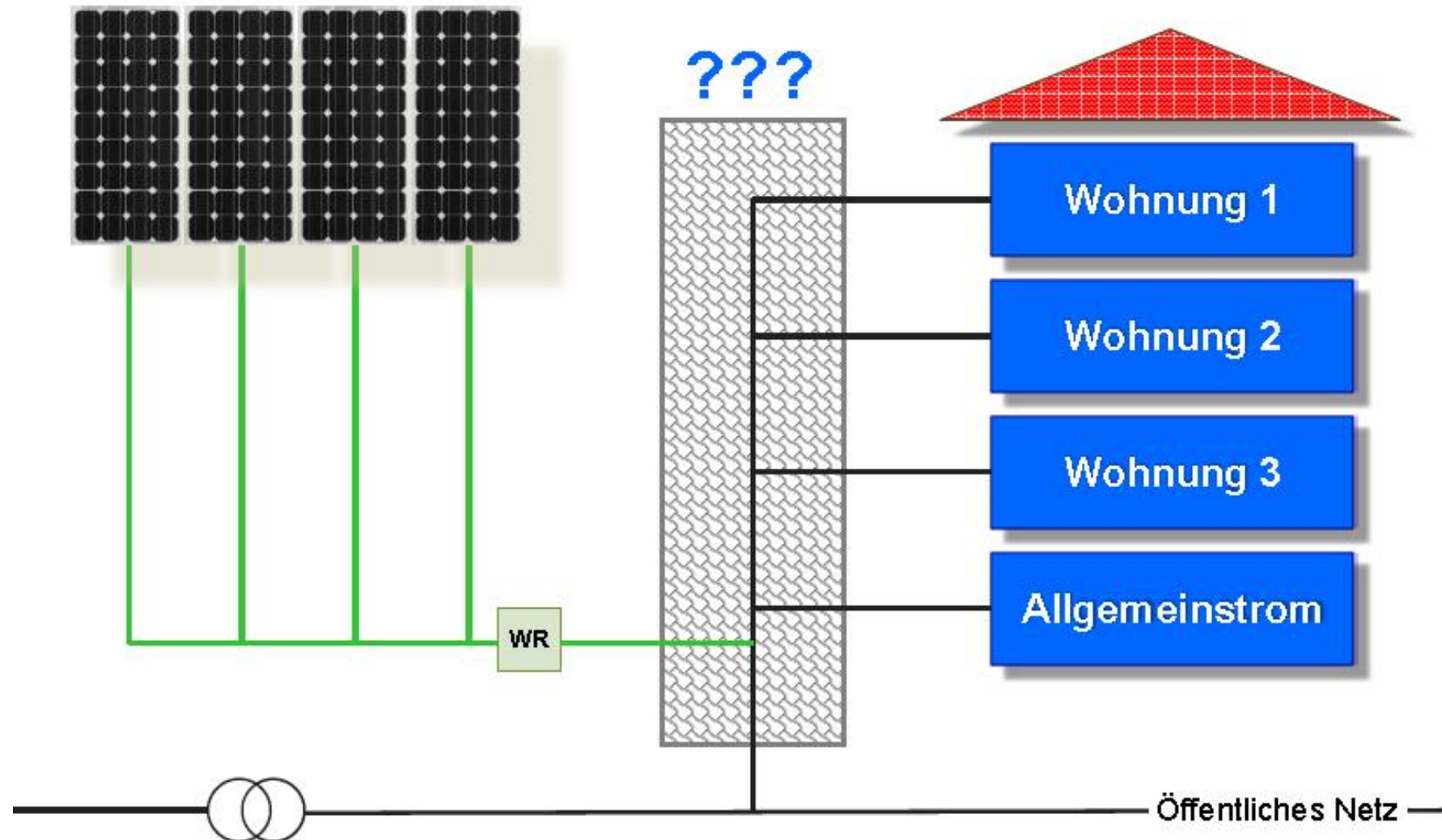




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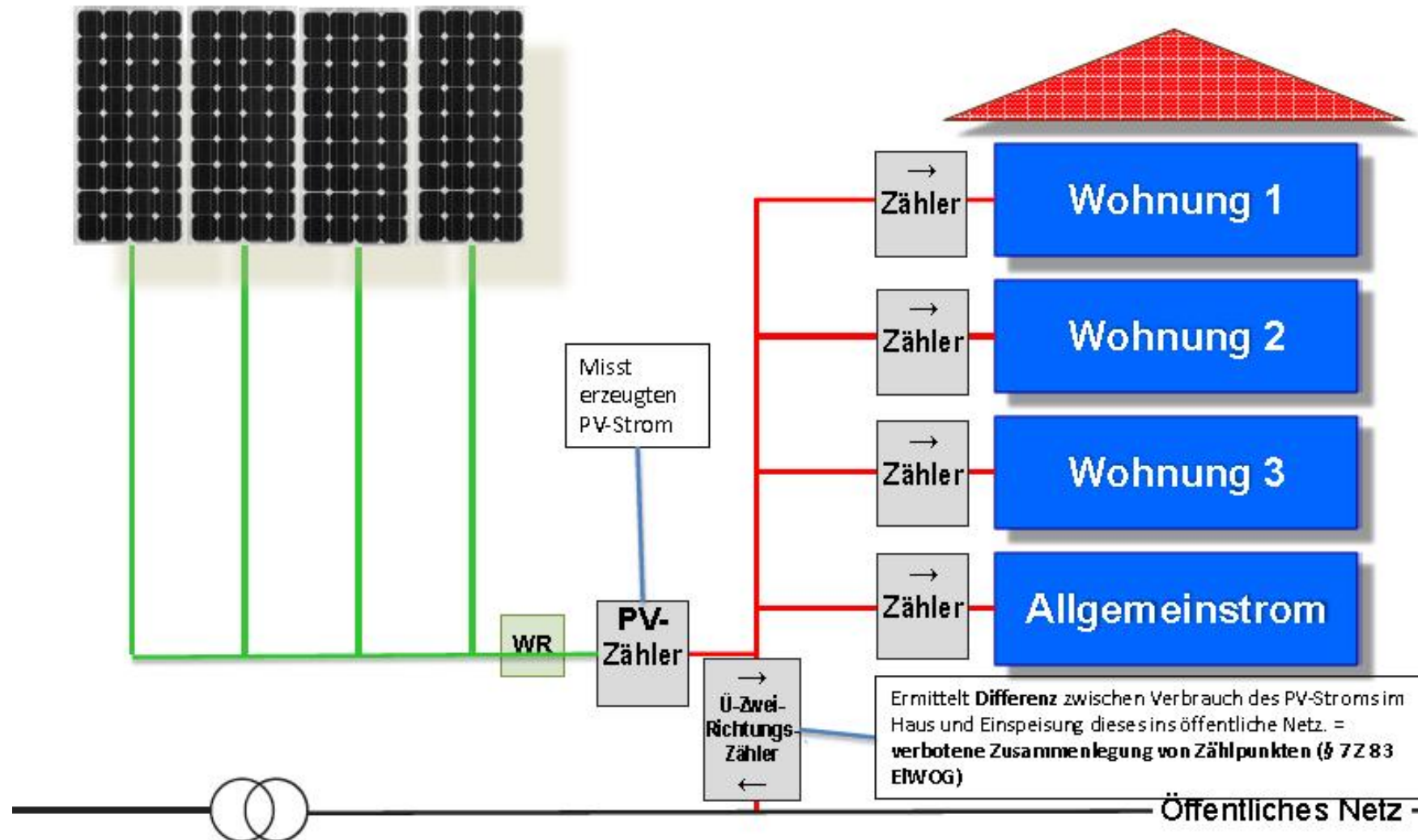


Geschäftsmodell „Stromgenossenschaft“ / WE-Gemeinschaft als Endverbraucher und paralleler PV-Strom-Erzeuger





Barrieren – WE-Gemein. als PV-Strom-Erzeuger

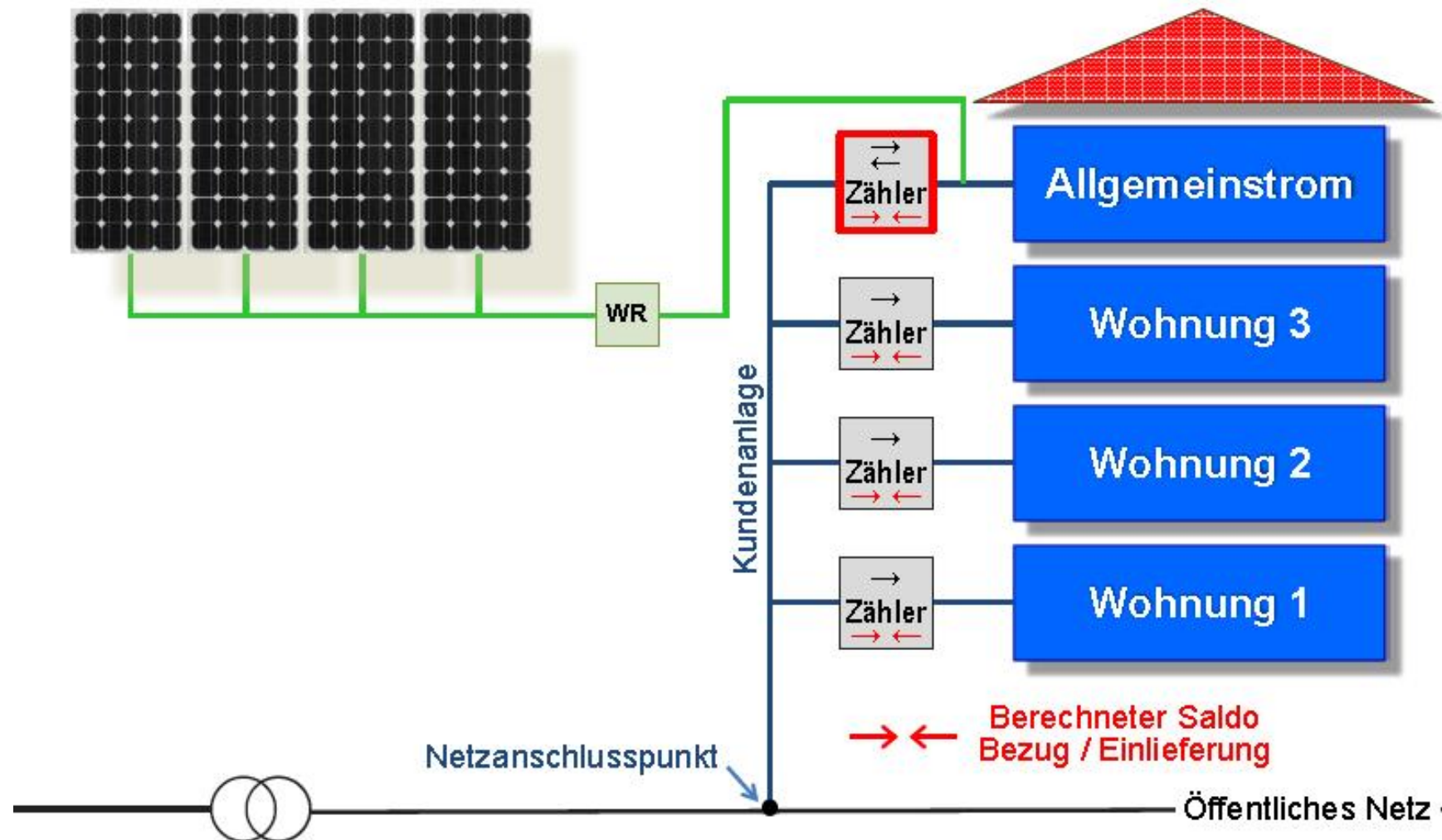




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Lösungsansatz „Kaufmännisch-bilanzielle Weitergabe der PV-Erträge an Haushalte“





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