CYBERGRID

A TOSHIBA Group Company

Mag. Marko Svetina

TOSHIBA

Leading Innovation >>>

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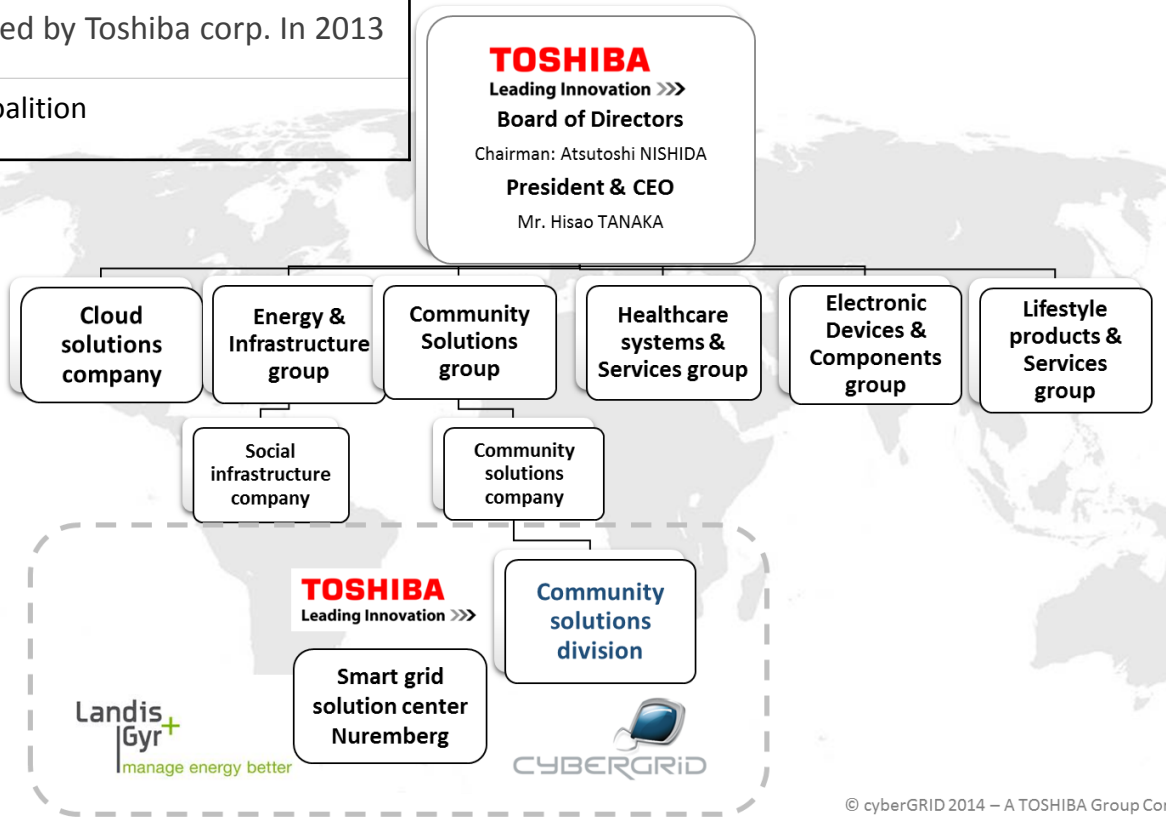
cyberGRID Introduction

Company name:	cyberGRID
Headquarters address:	Vienna, Austria
Founded:	2010
Ownership:	76% stake acquired by Toshiba corp. In 2013
Founding member of Smart Energy Demand Coalition	



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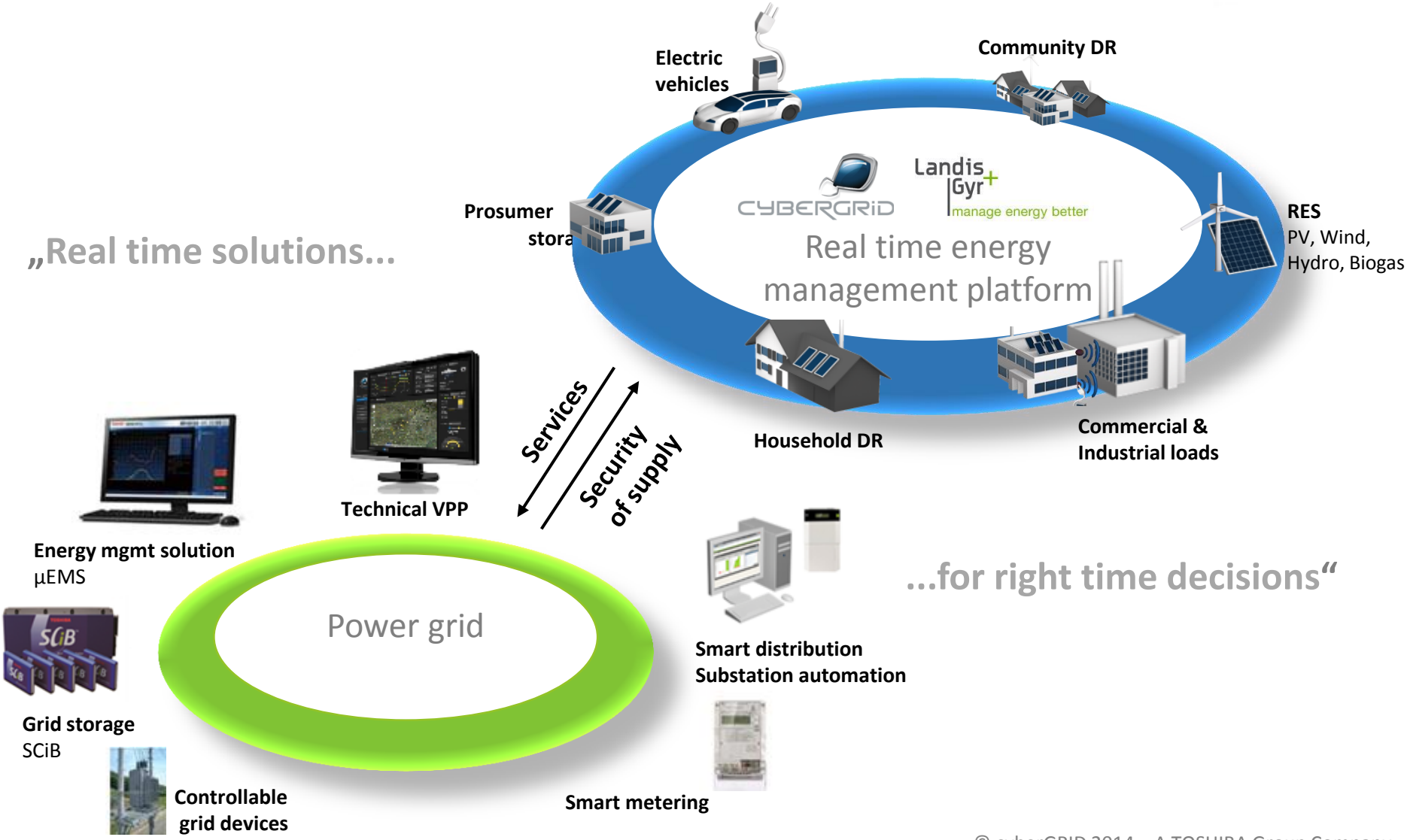
„Real time solutions...



...for right time decisions“

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Customers, Projects and Partners

Customers

Elektro Ljubljana, Slovenia

EDF, France

Vattenfall, Germany

GDF SUEZ – Electrabel

ELES

APG

and others in Switzerland, Austria,…

R&D projects

EDRC
- European demand response center; project coordinator

eBADGE
- Pan European inteligent balancing mechanism; technical coordinator

cyberPRICE
- Dynamic pricing mechanism: TOU/CPP/RTP; Project coordinator

evolvDSO
- Efficient DRES integration in distribution networks

hybrid-VPP4DSO
- Intelligent load management for distribution network;

Flexiciency
- energy services demonstrations of demand response, FLEXIbility and energy effiCIENCY based on metering data

…

Selected Partners

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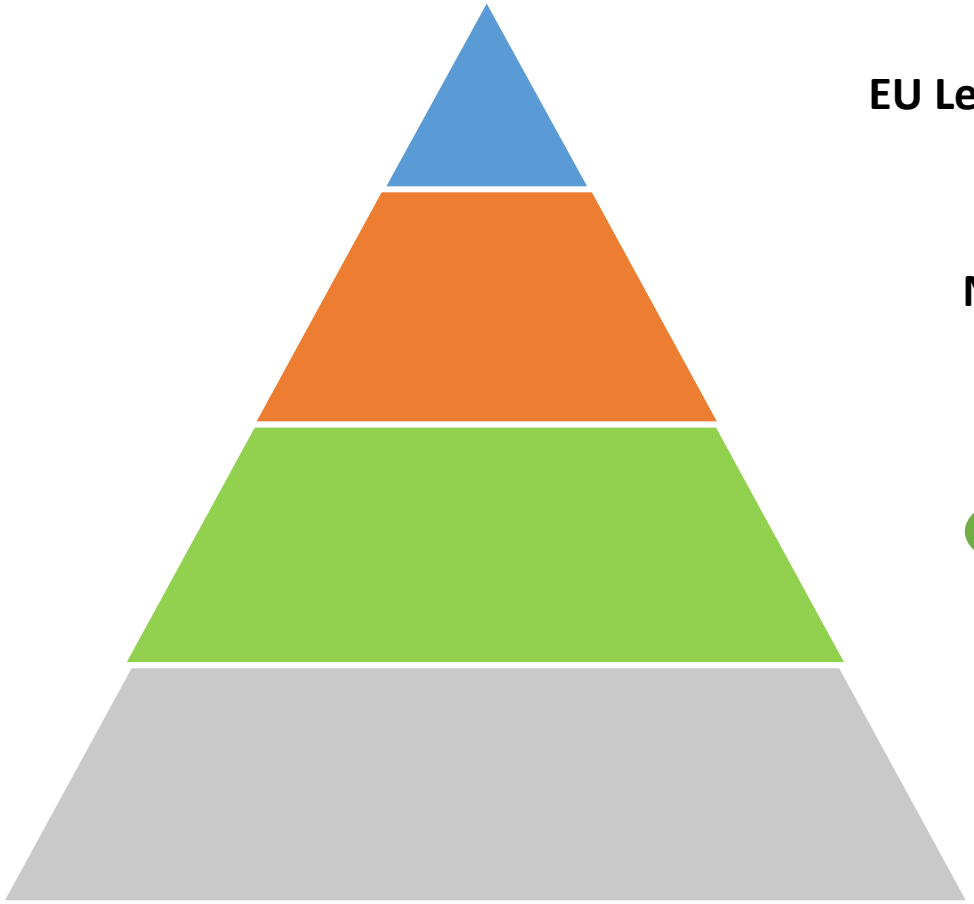
Optimization nodes - Energy



EU Level / trans-national (fast developing)

National (traditionally strong)

Local / regional (big potential)

Household (fast developing)

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Level 1 – Net metering

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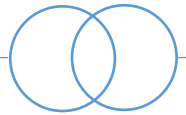
Transformer



Larger consumers

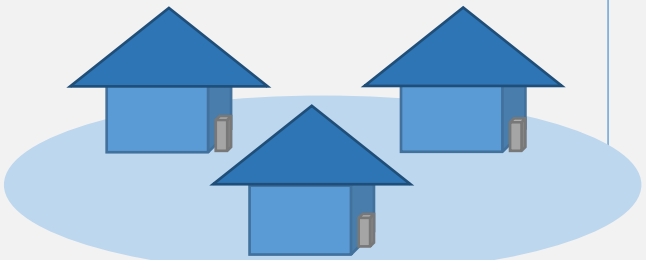
Profile meters

Energy Efficiency & D -RES

Yearly balancing
Time invariant consumption
Payment of imabalnces end of year

Net metering
Owners of renewable energy sources
No grid tarif
Renewable energy fee (30% - 40%)

Self consumption



No profile meters

VPP for minimizing yearly imbalance costs in local area

cyberNOC

Questions to address:
- *Belonging to balance group*
- *Cross balance group aggregation*

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Level 2 – Active market participation

VPP for minimizing daily imbalance costs

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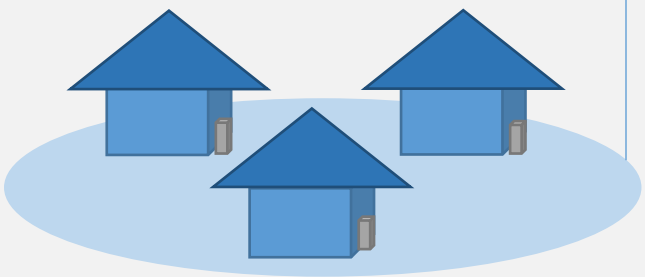
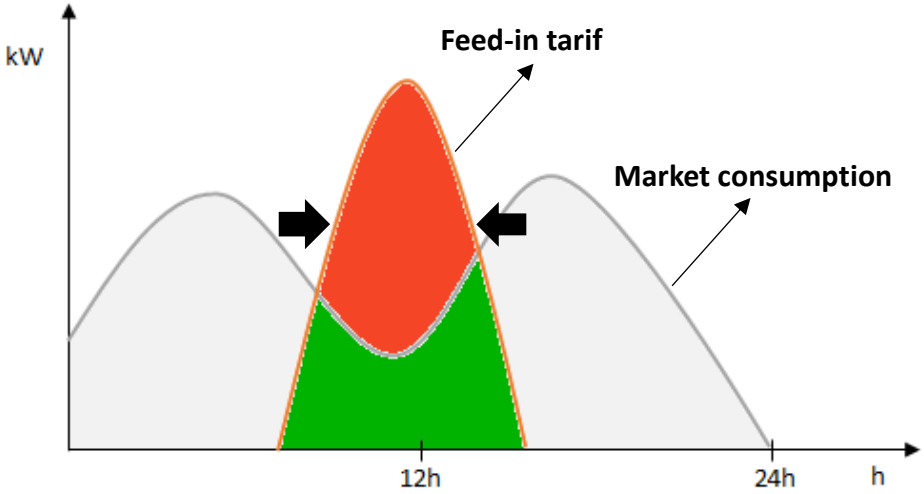
Self consumption



Profile meters



VPP: Adjusting daily consumption to fit electricity generation

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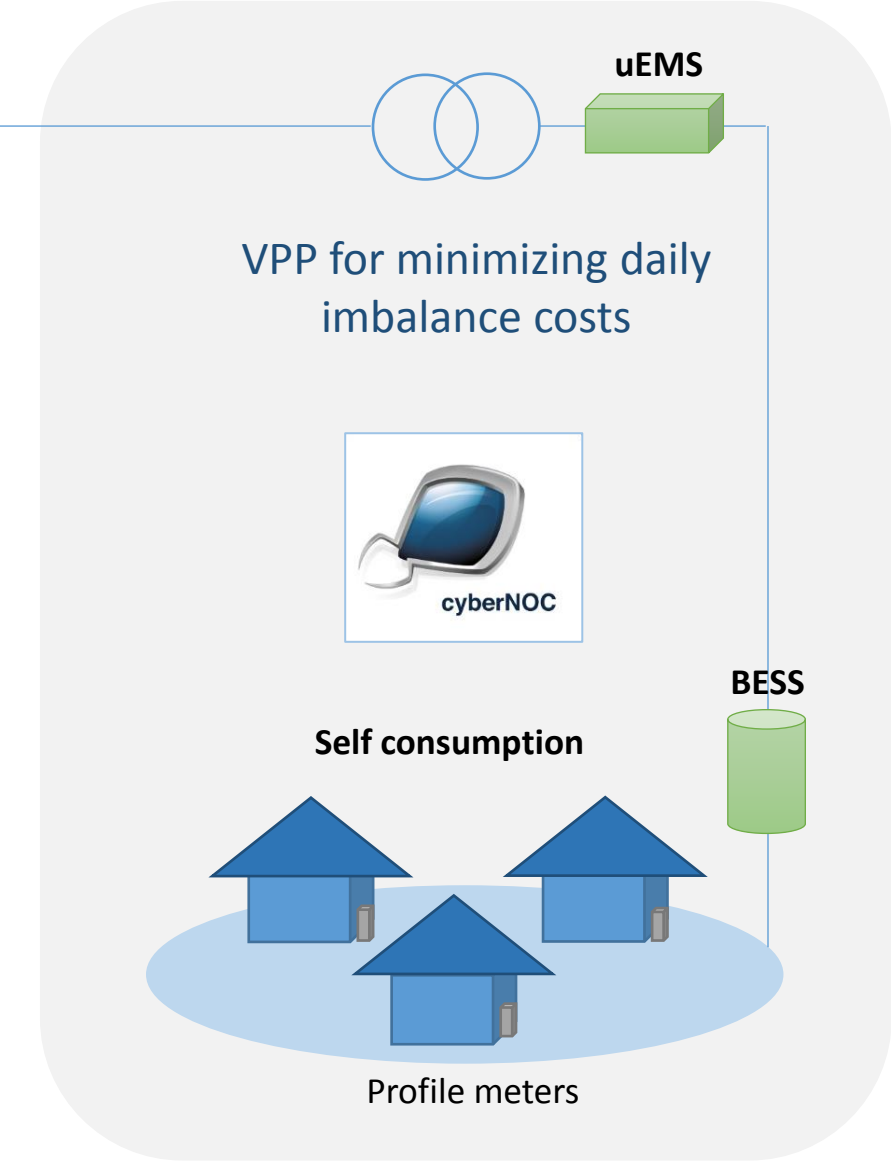
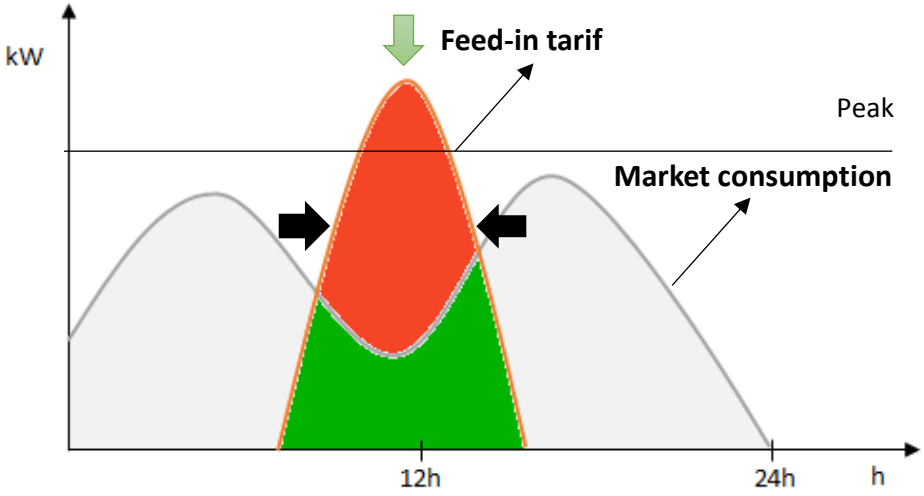
Level 3 – Market + Grid



uEMS: Controlling consumption not to breach the peak



VPP: Adjusting daily consumption to fit electricity generation based on set uEMS limitations

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Level 4 – Self sustaining communities

Genossenschaft trading via central VPP

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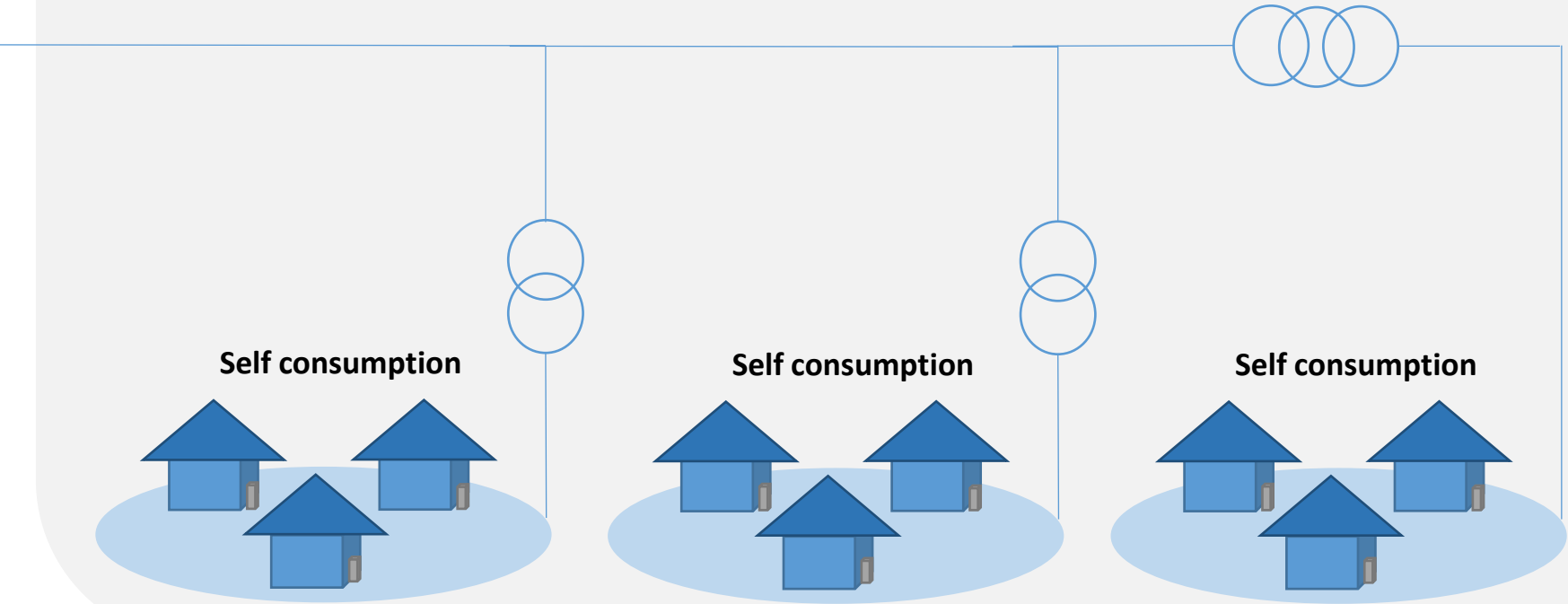
Trading/balancing within communities
Trading of green energy
Building on previous three levels:
- *yearly balancing*
- *daily balancing*
- *daily balancing with uEMS and BESS*



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Real time solutions for right time decisions

cyberGRID
Inkustrasse 16, A-3400 Klosterneuburg,
AUSTRIA

office@cyber-grid.com
www.cyber-grid.com

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