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Нови перспективни модели на изграждане на индивидуални енергийни системи

със SMART GRID технология



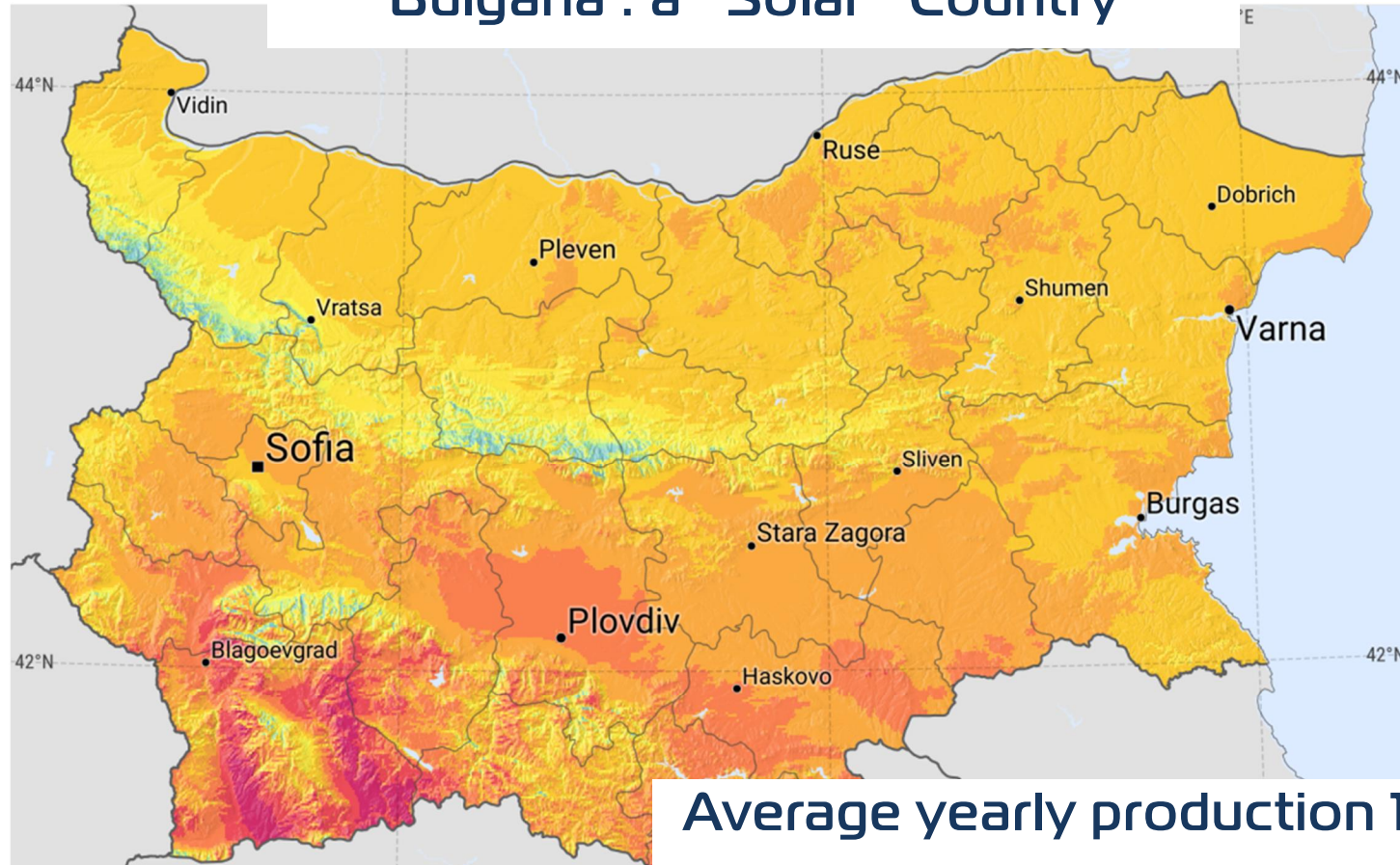
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New innovative models of construction of individual energy systems

with SMART GRID technology

Bulgaria : a "Solar" Country



Average yearly production 1330 kWh/kWp

Range: 1200 ~ 1500 kWh/kWp

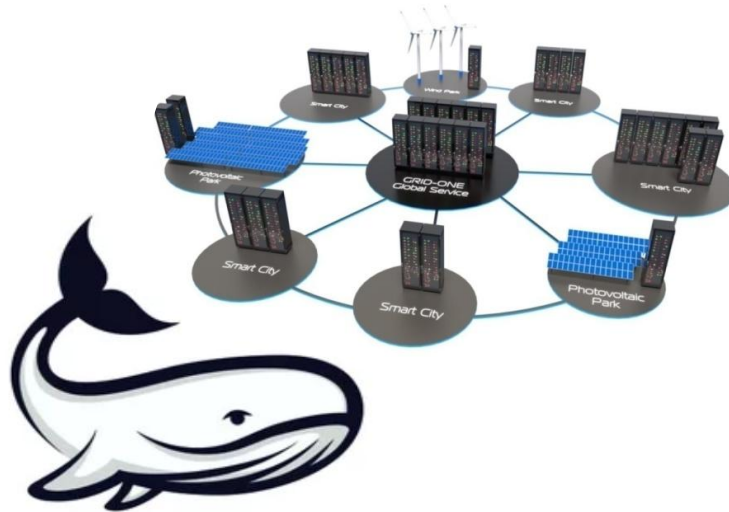
Courtesy SOLARGIS.com



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4 Whales of Green Energy

- Wind
- Biomass
- Geothermal
- Environment





SMART building ecosystem



GRID-ONE Dispatching



Management
Remote access for monitoring and management



GRID-ONE Data Center



Lifts control



Firealarm & Firefighting



Hydrofor



Security & CCTV systems



Hot water systems







Remote Control



Hydrogen & Lithium



Photovoltaics

-  Датчик за осветненост
-  Датчик за присъствие
-  Датчик за CO2, озон и запрашеност
-  Датчик за температура и влажност



Meters



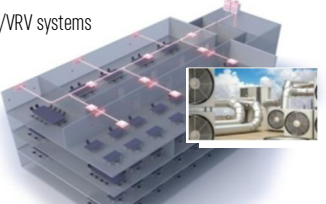
Weather monitoring



Lights control



Conditioners



VRF/VRV systems

Climatronics



What is missing?

2023:

No Individual Energy Systems Sector

No Geothermal Energy Communities

No EV Energy Production Balancing

and

No National Strategy!



Individual systems for "green energy"



Вятърни генератори



PV панели



ВЕЦ



Соларни панели



Инвертори



Управляеми помпи



Контрол и управление



Сториджи на енергия



Управляеми клапани

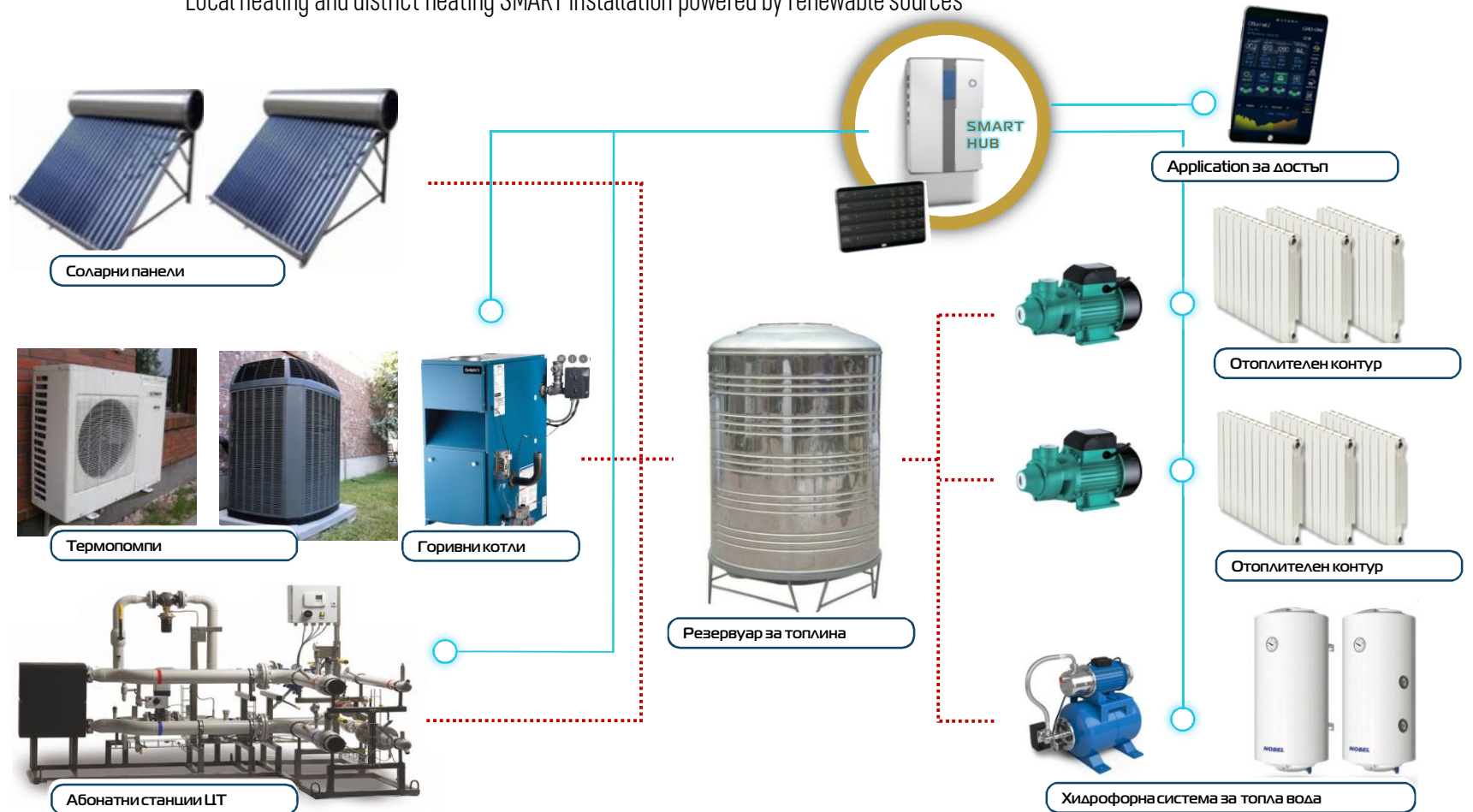


Сториджи на топлина

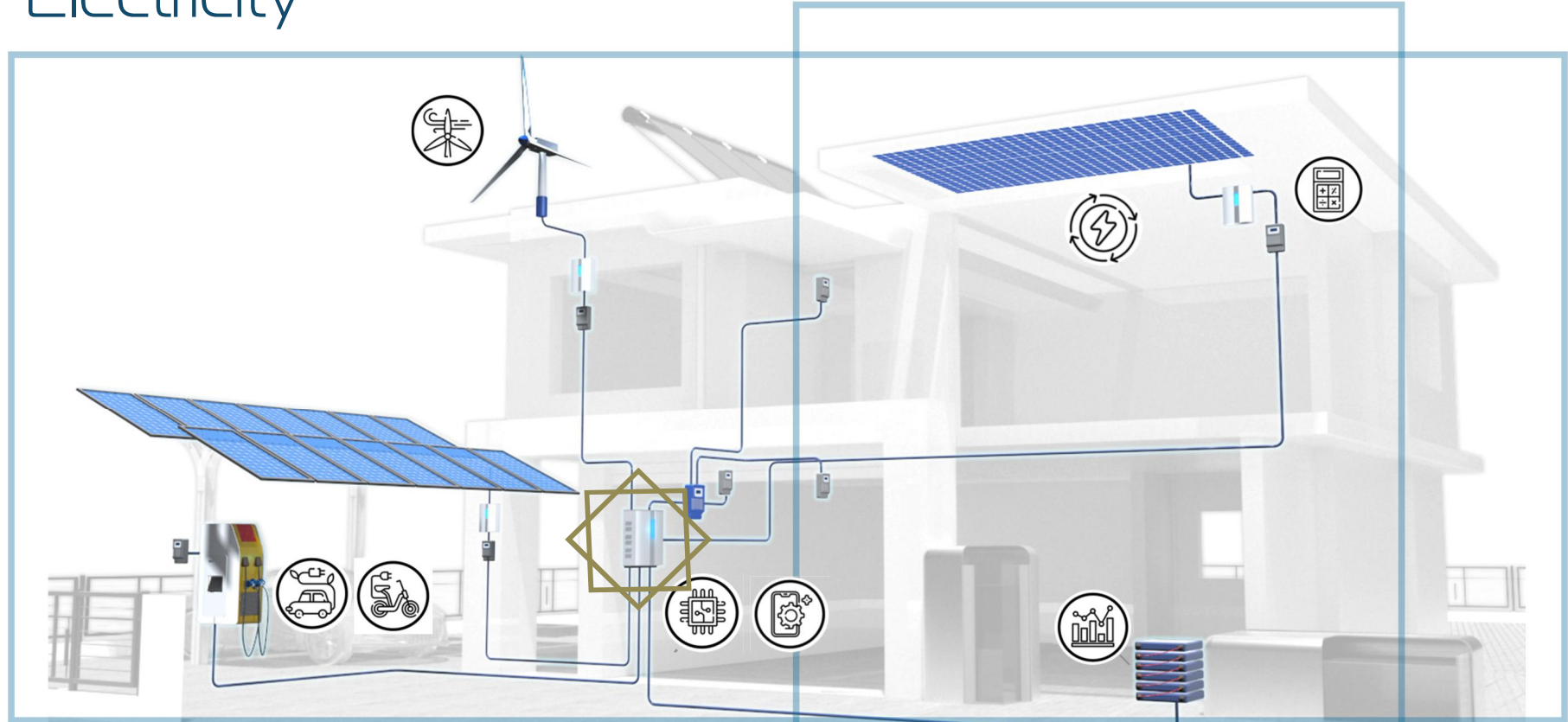


Individual heat SMART systems. Heat pumps & Solar

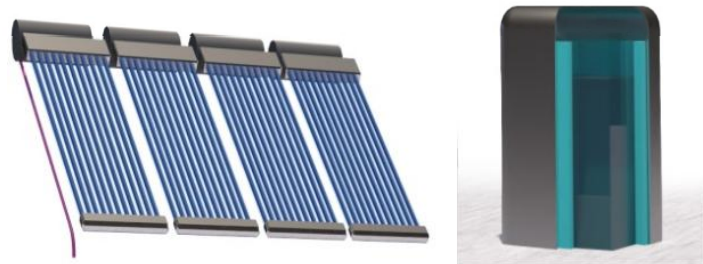
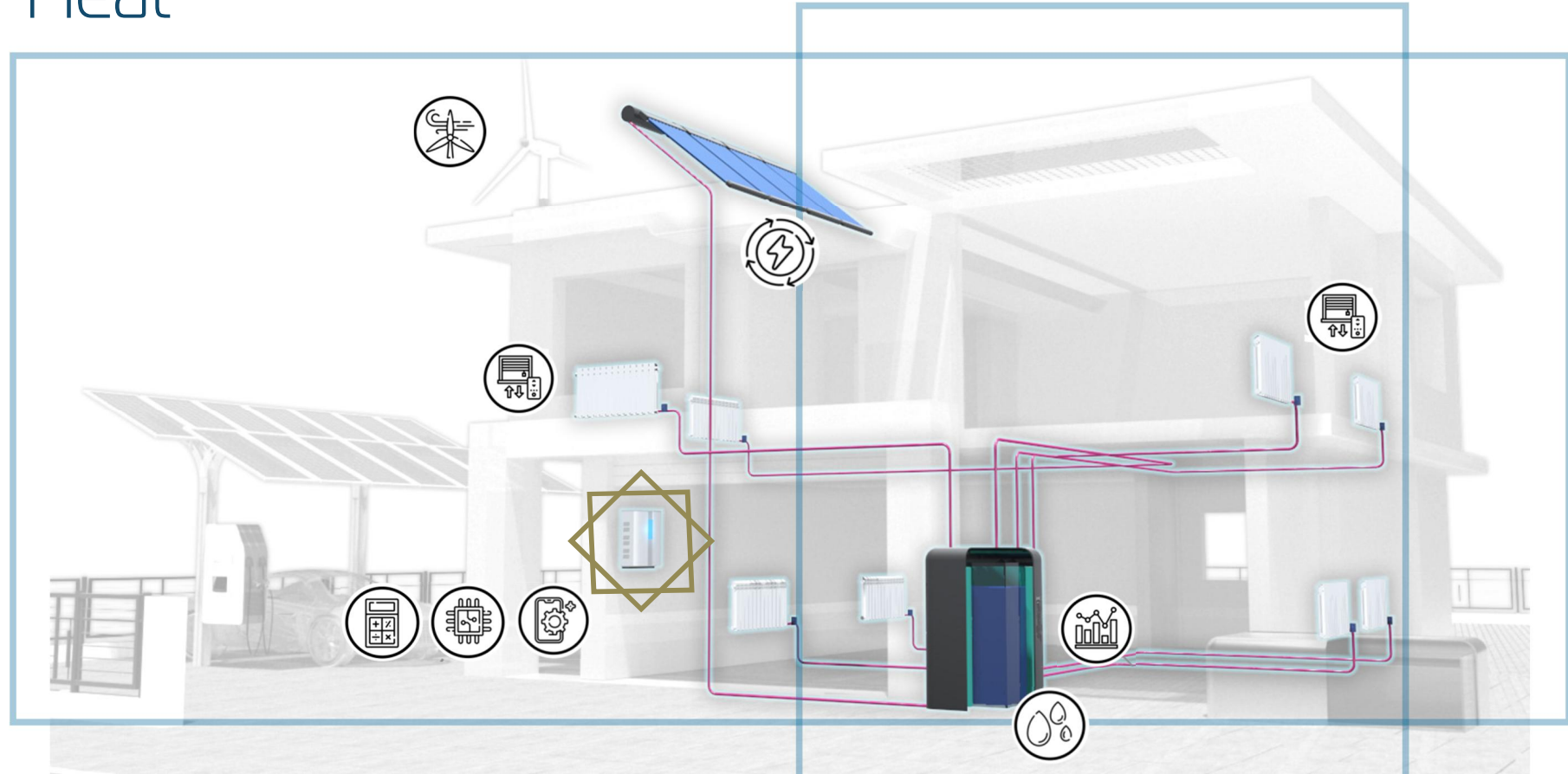
Local heating and district heating SMART installation powered by renewable sources



Electricity



Heat



2023:

The main market driver?

How to organize it?

WHAT IS INNOVATIVE?

The key technology?

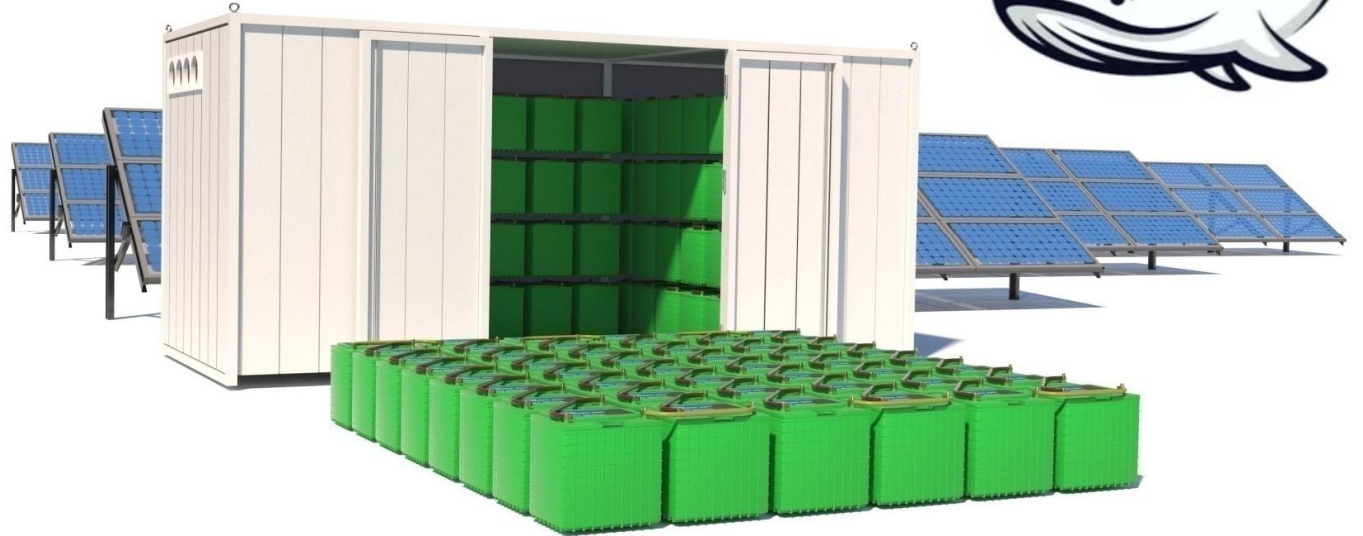


The main market driver

Integrated EVs = Lithium Storages



Drive "Local"



“The Fifth Whale”



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How to organize the sector?

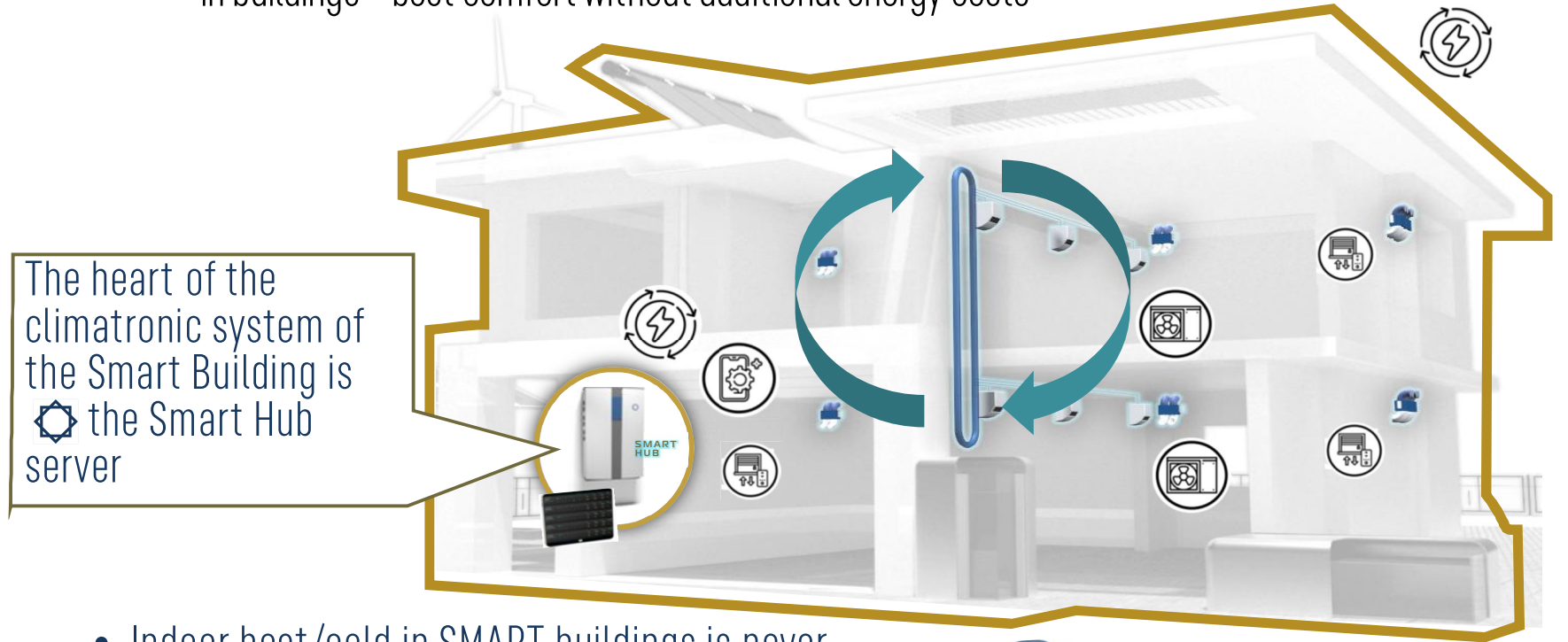


- Energy Communities
- Crediting mechanism
- Renewable Comm.2001/2018?
- **National Strategy**
- SMART Cities
- Energy-Independent Islands
- Market integration

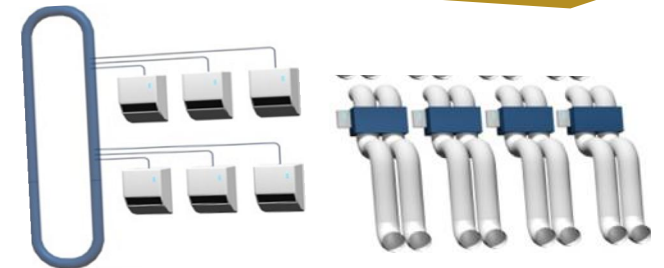


Innovative = No losses = Min. energy

SMART system for circulating generated energy and present microclimatic energy in buildings – best comfort without additional energy costs

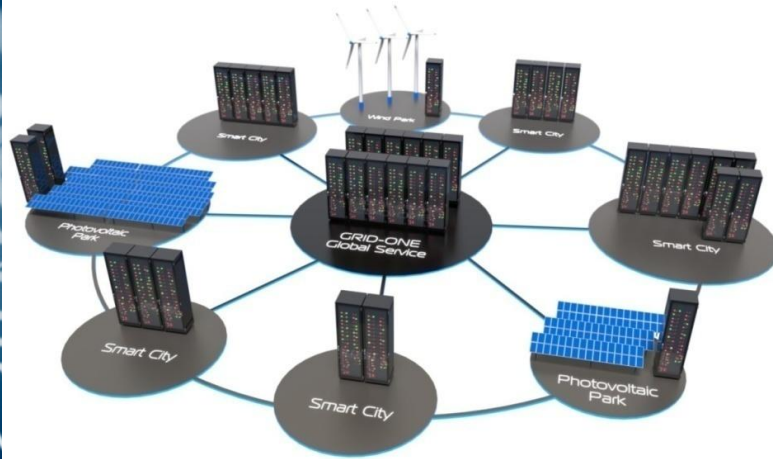


- Indoor heat/cold in SMART buildings is never dumped outside.
- Heat/cold flows are recovered and utilised between different zones in the building
- Chepest available electricity used





The key technology



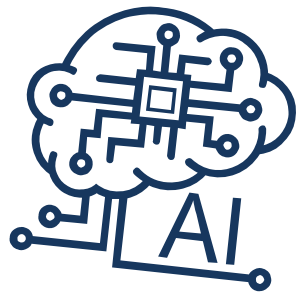
- GRID-ONE Global Management
- SMART Grid management
- SMART City management
- Energy System Management
- Country – City – Community - Building



Green Targets: Bulgaria'2040

- 1. 5 kWh PV per roof**
“Amount of PV – not a real target!”
- 2. 380 000 EVs with 100kWh batt.**
~ 15% of all 4-wheel vehicles
- 3. ALL chargers: G2V + V2G**
2 types of chargers:
BIG + Fast/Small Capacity/Available
- 4. Energy Communities with 100% energy recycling**

GRID-ONE: One Grid, to bind them all.



THANK YOU