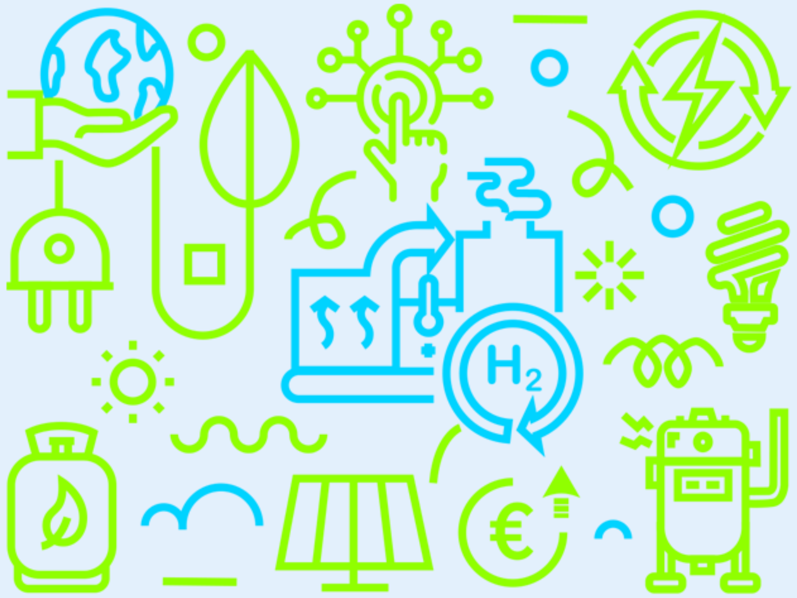
TEDOM

Decentralised Energy Generation

Jiri Janša, TEDOM



XX CONGRESO ANUAL DE COGENERACIÓN

COGENERACIÓN, **FUTURO SOSTENIBLE** PARA LA INDUSTRIA

COGEN España

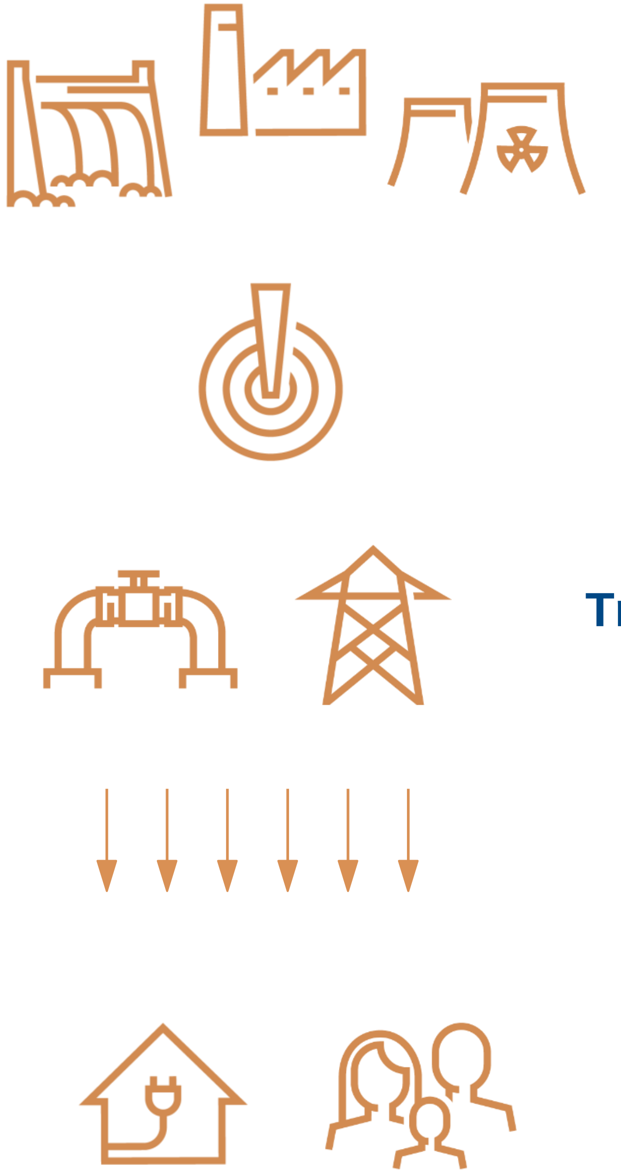
Asociación Española Cogeneración acogen

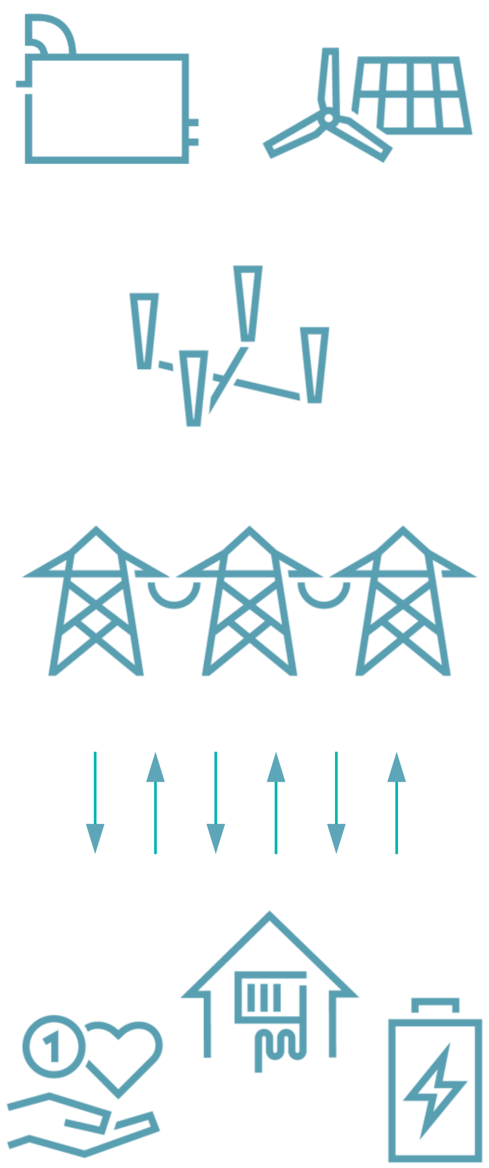
15 DE OCTUBRE 2024

HOTEL VILLA REAL **MADRID**

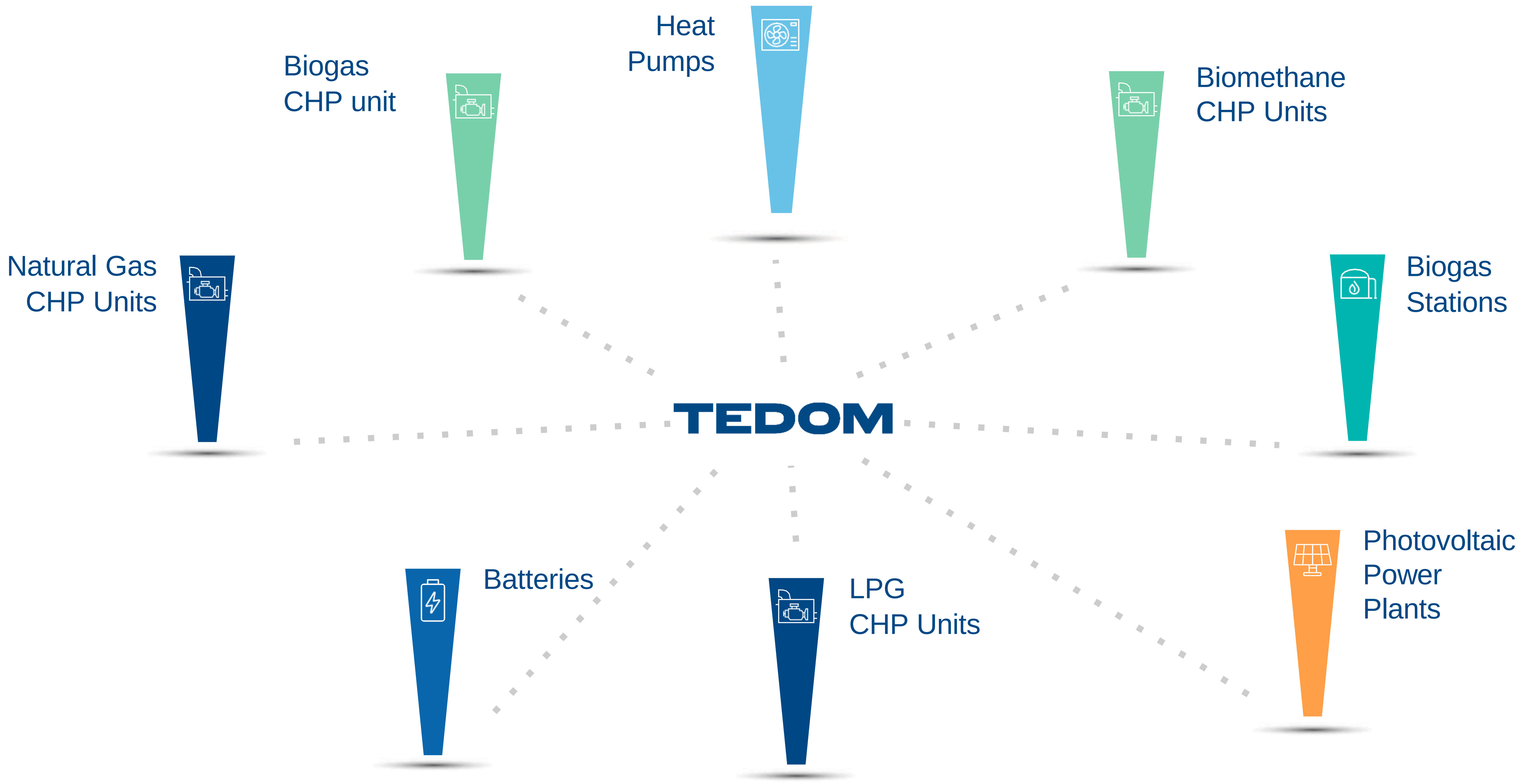
How the modern energy industry is evolving

Yesterday		Tomorrow
Several Large Power Plants	**Production**	Greater Number of Smaller Producers
Centralized	**Market**	Decentralized
Nationwide and Large Capacity	**Transmission System**	Cross-border, including Small Local Networks
One-way	**Distribution**	Two-way
Passive, only buys	**Consumer**	Actively Participates in the Energy System

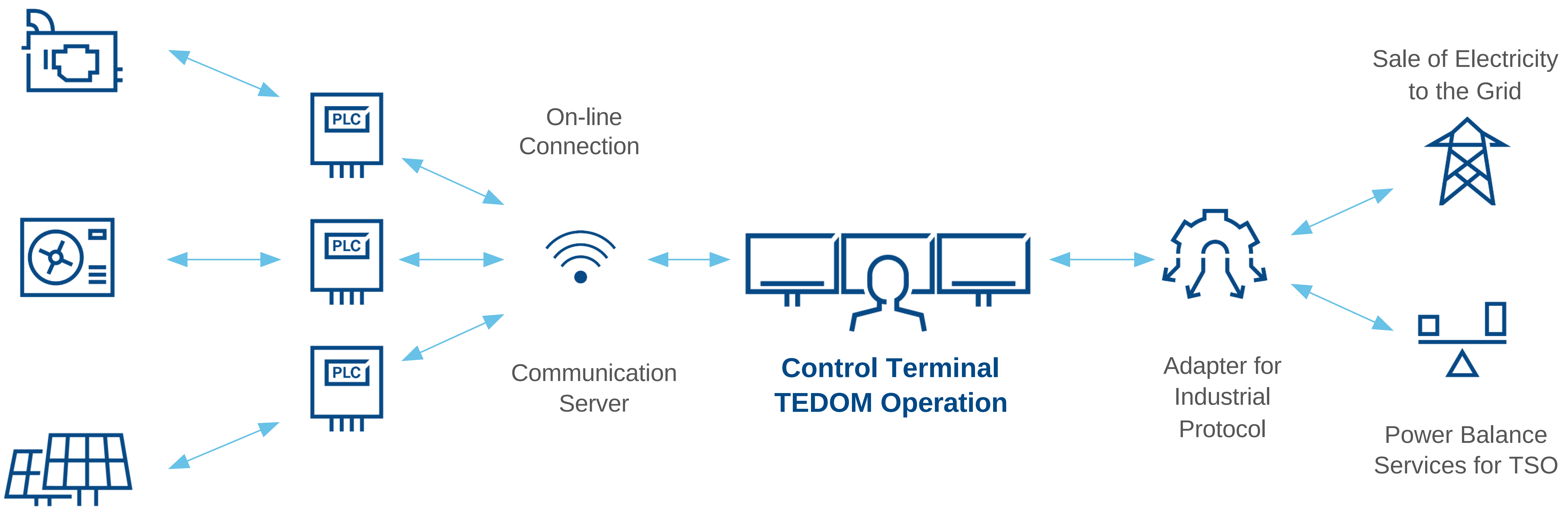




We manufacture and install decentralised sources for electricity production as well as regulation



Virtual Power Plant and Power Balancing Services



Heat Pump + CHP Unit

Summary Profile

- Cheap renewable electricity
- Low heat demand

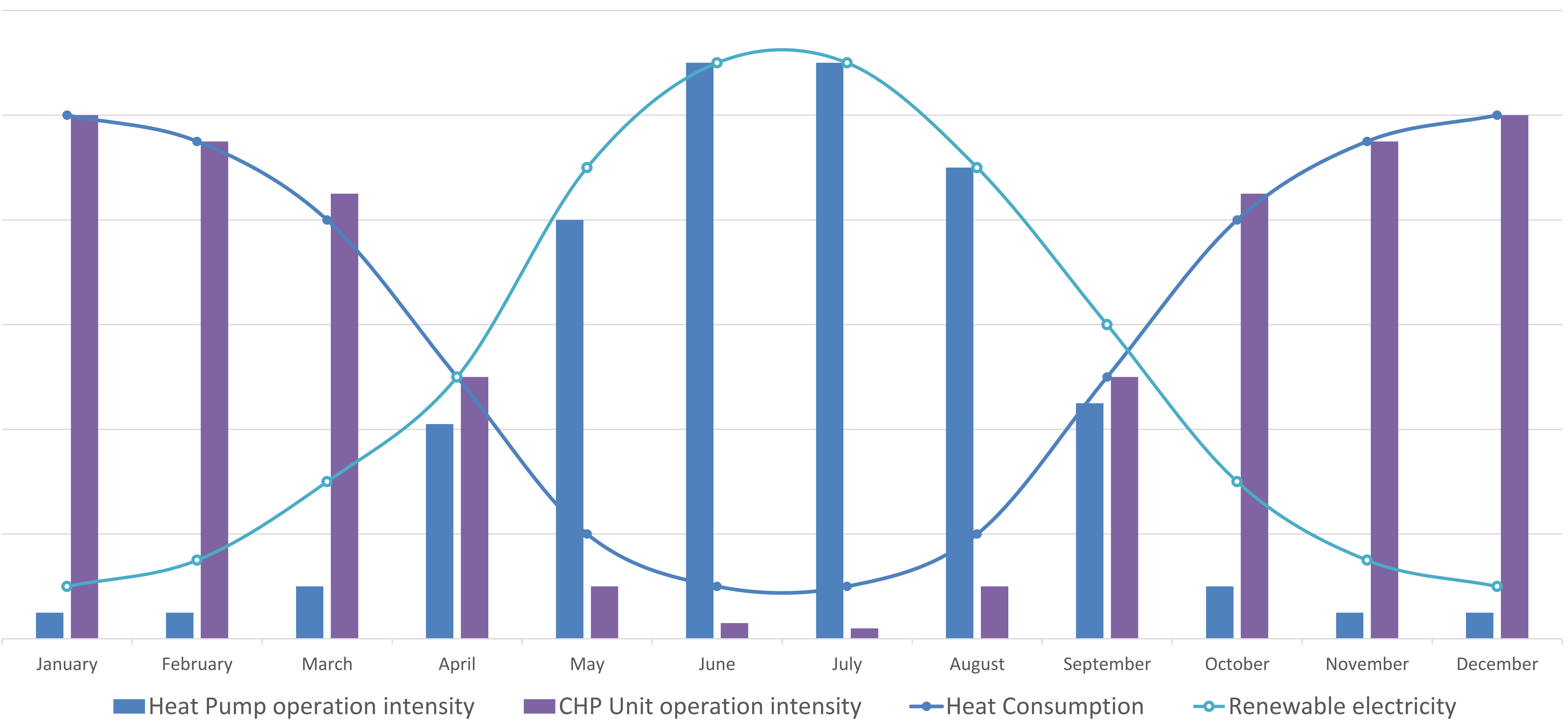
Heat Accumulation

- Adds flexibility to the system
- Heat pump can by used as a negative source of energy

Winter Profile

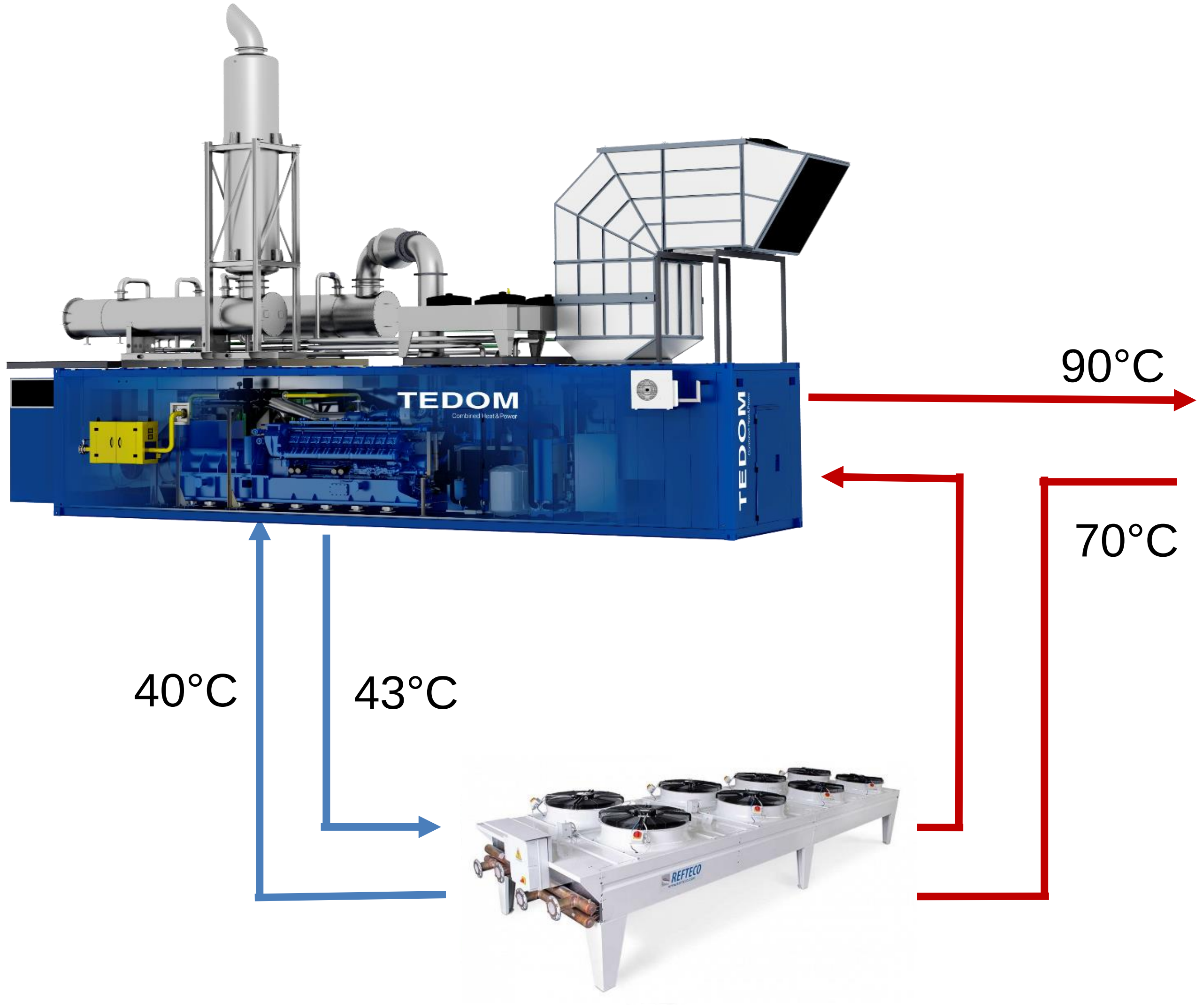
- Limited renewable electricity
- High heat demand

CHP and Heat pump operation intensity



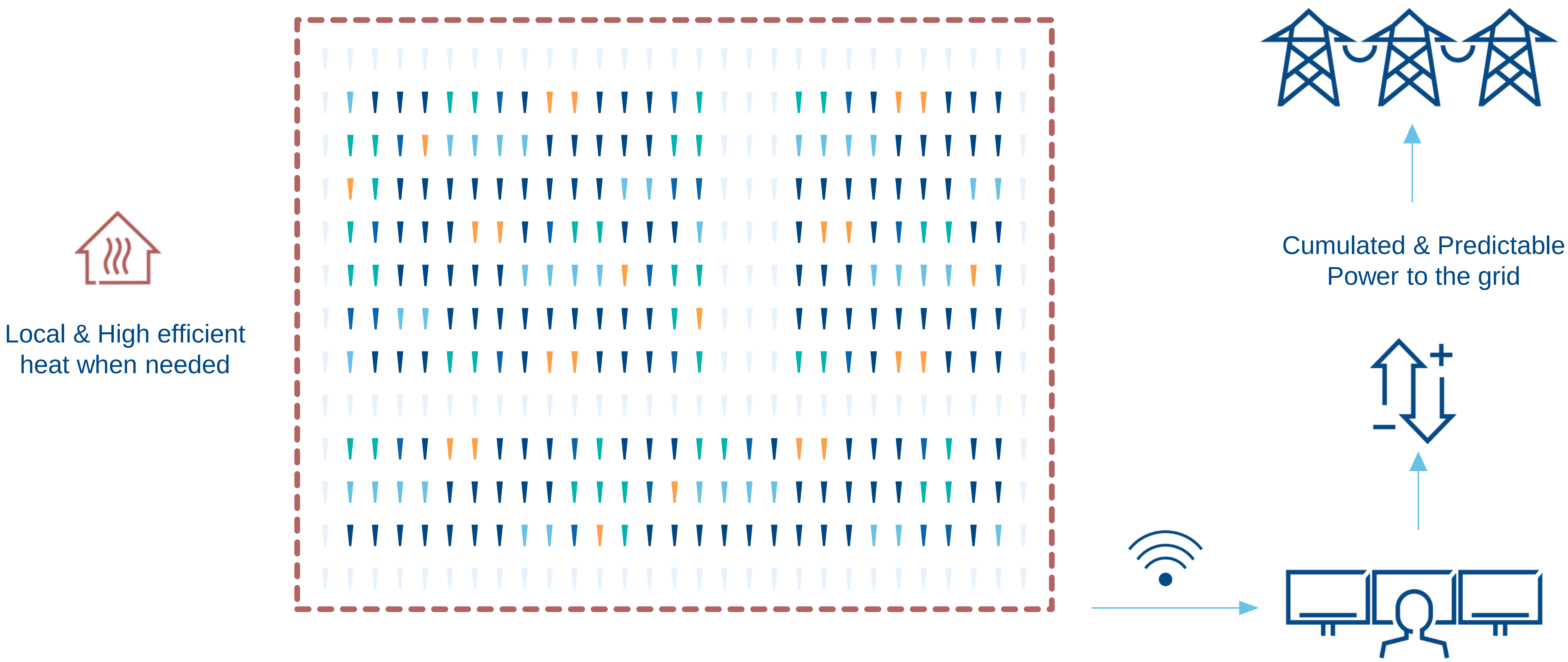
Incrase of the heat efficiency by 5-10% and payback below one year

Quanto 1000 kW + heat pump



Parametr	Jednotka	Hodnota
Thermal output Heat Pump output	[kW]	66
Total thermal output for 8000 h	[kW]	528 000
Price for heat 0,1 EUR / kWh	[EUR]	52 800
Savings for cooler 1,2 kW/h * 8000 * 0,3 EUR /kWh	[EUR]	2 880
Heat pump operation 15 kWh * 0,3 EUR / kWh	[EUR]	36 000
Servis costs 0,1 EUR / mth	[EUR]	800
Heat pump + instalation	[EUR]	24 000
ROI		0,78

Decentralised Energy Sector of the Future



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