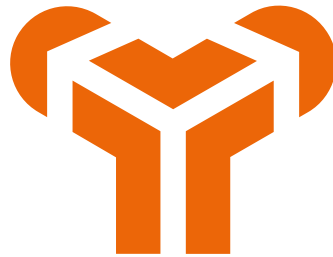


CHP in residential buildings

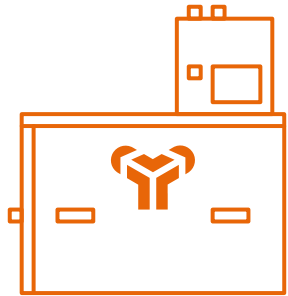
Best practices



kraftwerk

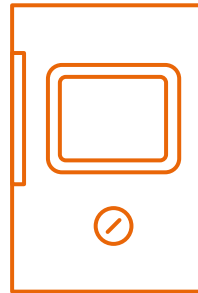
Who we are and what we do

- CHP manufacturer since 1996
- Over 100 employees in development, production and maintenance
- Project support from conception to decommissioning



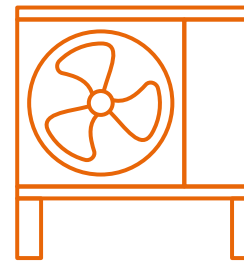
mephisto

Combined Heat and Power
from 8 to 50 kW_{el}



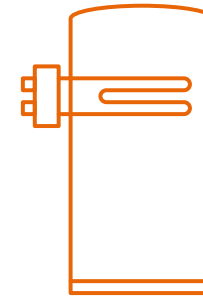
direktor

Control unit for all
energy producers



Heat pumps

with continuous modulation
from 10 – 50 kW_{th}



Buffer tanks

Made to measure for
each project

CHP in residential buildings

Benefits

- Energy production is located exactly where it is needed
 - minimal energy losses
 - reduced costs

Challenges

- Soundproofing
- Space requirements



Residential Building
Mephisto G50



Wellness hotel
Mephisto G22



Nursing home
Mephisto G50

How to face the challenges

Soundproofing

- Closed housing and silencers for exhaust and intake air
- Structure-borne noise decoupling
- Acoustic insulation of the mechanical room

Space requirements

- Compact design
- Dismountable frame and machine set



How to face the challenges

Soundproofing

- Closed housing and silencers for exhaust and intake air
- Structure-borne noise decoupling
- Acoustic insulation of the mechanical room

Space requirements

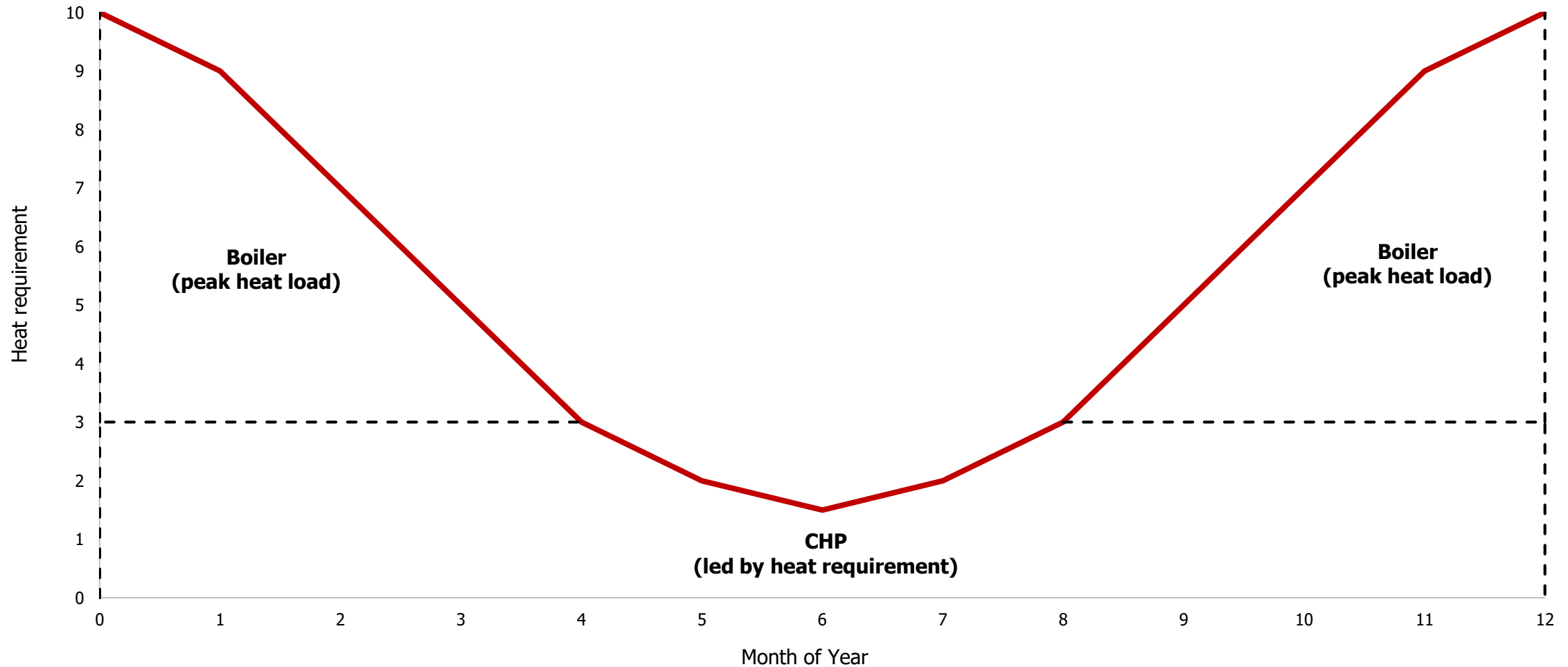
- Compact design
- Dismountable frame and machine set



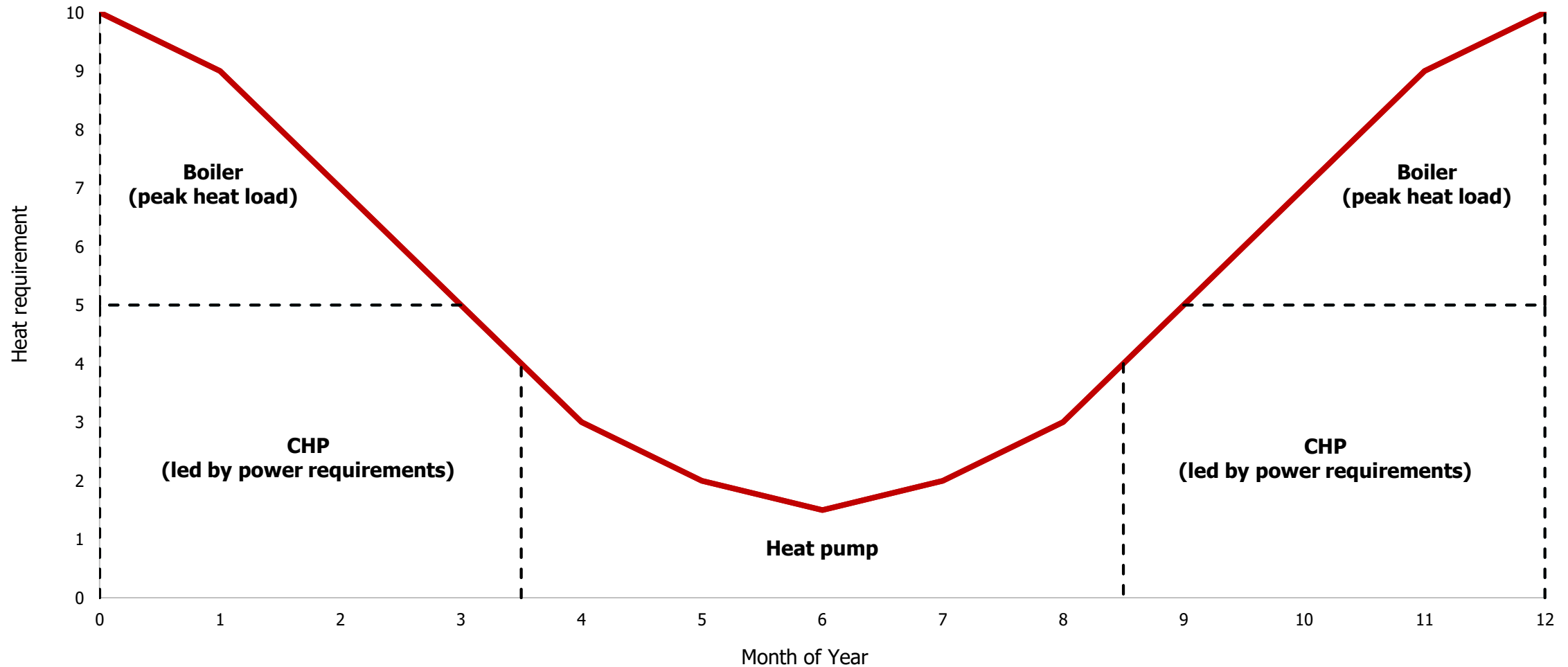
CHP installation options



“Classic” concept: CHP + Boiler



Use of various energy producers throughout the year



Example: Residential Area in Gifhorn, Germany

- 144 apartments in 7 buildings
- Connected to local heat (& cooling) network
- Energy supply concept
 - Mephisto G50 CHP
 - Geothermal heat pump
 - Gas boiler
- Current status: in operation since 2018



© image: Stadtwerke Gifhorn

Example: Residential Area in Panketal, Germany

- 221 apartments
- 13 small businesses / shops
- Energy supply concept
 - 1 x Mephisto G50 CHP
 - 3 x Wastewater heat pumps
 - 2 x Gas boiler
- Current status: under construction



© image: Treucon Kondor Wessels



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