

SuReal

SUSTAINABILITY EXPERTS

Thys Bouwgroep

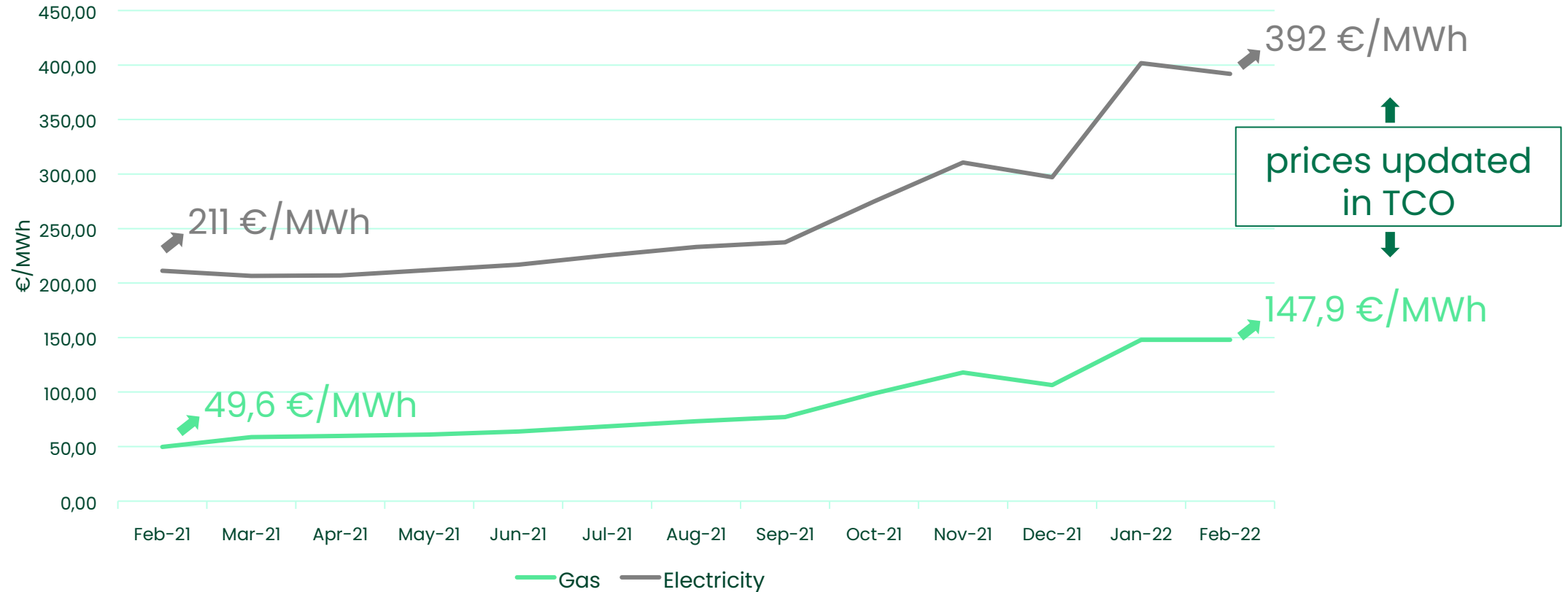
SEDS – Update 2022

22/02/2022

TOTAL COST OF OWNERSHIP





$$\begin{array}{c}
 \text{TCO} = \text{Icon I} + \text{Icon O} + \text{Icon M} + \text{Icon P} - \text{Icon R} \\
 \text{Initial Cost} \quad \text{Cost of Operation} \quad \text{Cost of Maintenance} \quad \text{Cost of Production} \quad \text{Remaining Value} \\
 \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \\
 C_G(\tau) = C_I + \sum_j \left[\sum_{i=1}^{\tau} (C_{a,i}(j) \times R_d(i)) - V_{f,\tau}(j) \right]
 \end{array}$$

Evolution of energy prices



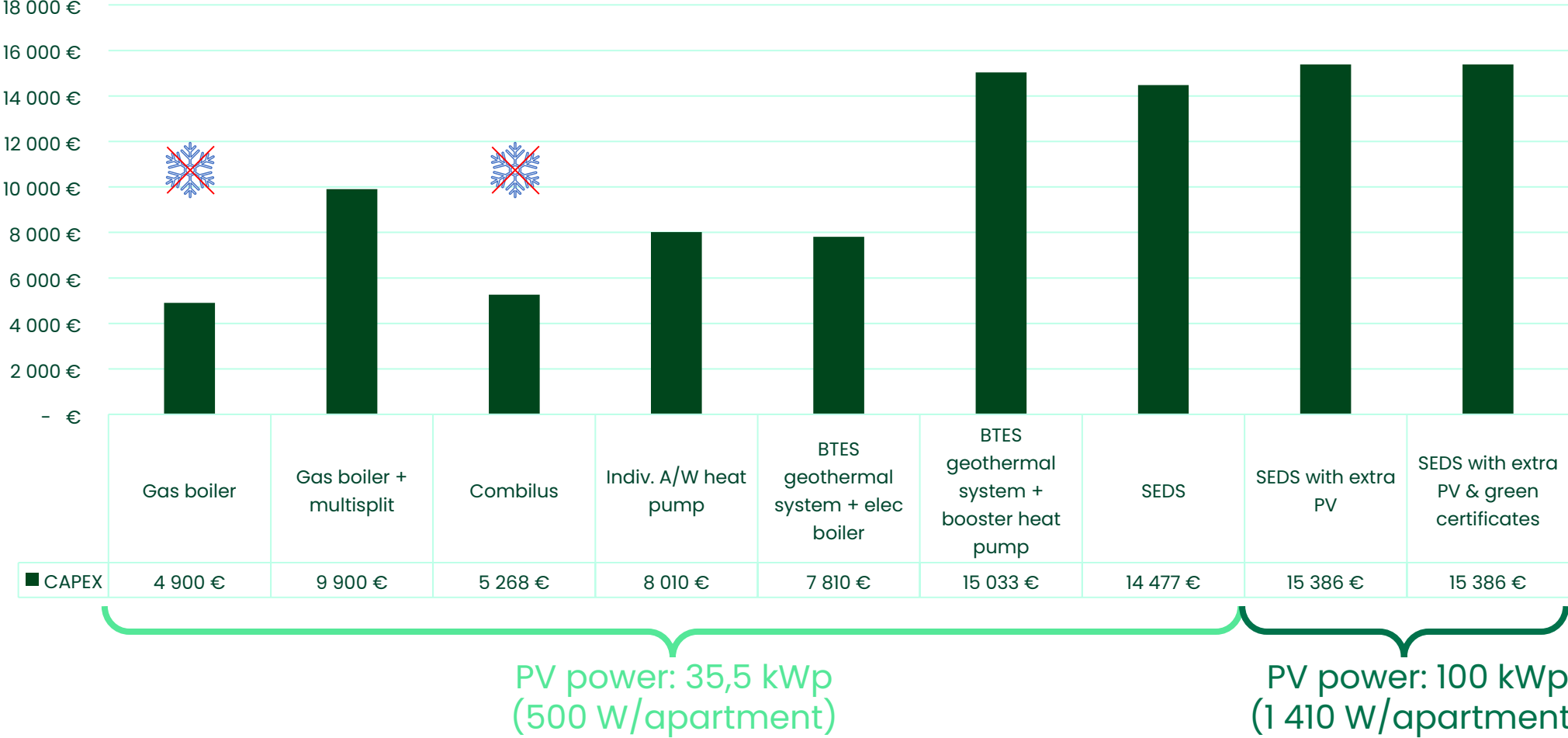
Source: vreg.be (Average household)

scenarios

	1	2	3	4	5	6	7	8	9
	Gas boiler	Gas boiler	Combilus	A/W heat pump	BTES geothermal system	BTES geothermal system	SEDS BTES	SEDS BTES	SEDS BTES
	No cooling	Multisplit airco	No cooling	A/W heat pump	BTES geothermal system	BTES geothermal system	SEDS BTES	SEDS BTES	SEDS BTES
	Gas boiler	Gas boiler	Combilus	A/W heat pump	Electrical boiler	Booster heat pump	SEDS Booster HP	SEDS Booster HP	SEDS Booster HP
	35,5 kWp (500Wp/appt)	35,5 kWp (500Wp/appt)	35,5 kWp (500Wp/appt)	35,5 kWp (500Wp/appt)	35,5 kWp (500Wp/appt)	35,5 kWp (500Wp/appt)	35,5 kWp (500Wp/appt)	100 kWp (1410Wp/appt)	100 kWp (1410Wp/appt) Including Green Electricity Certificats

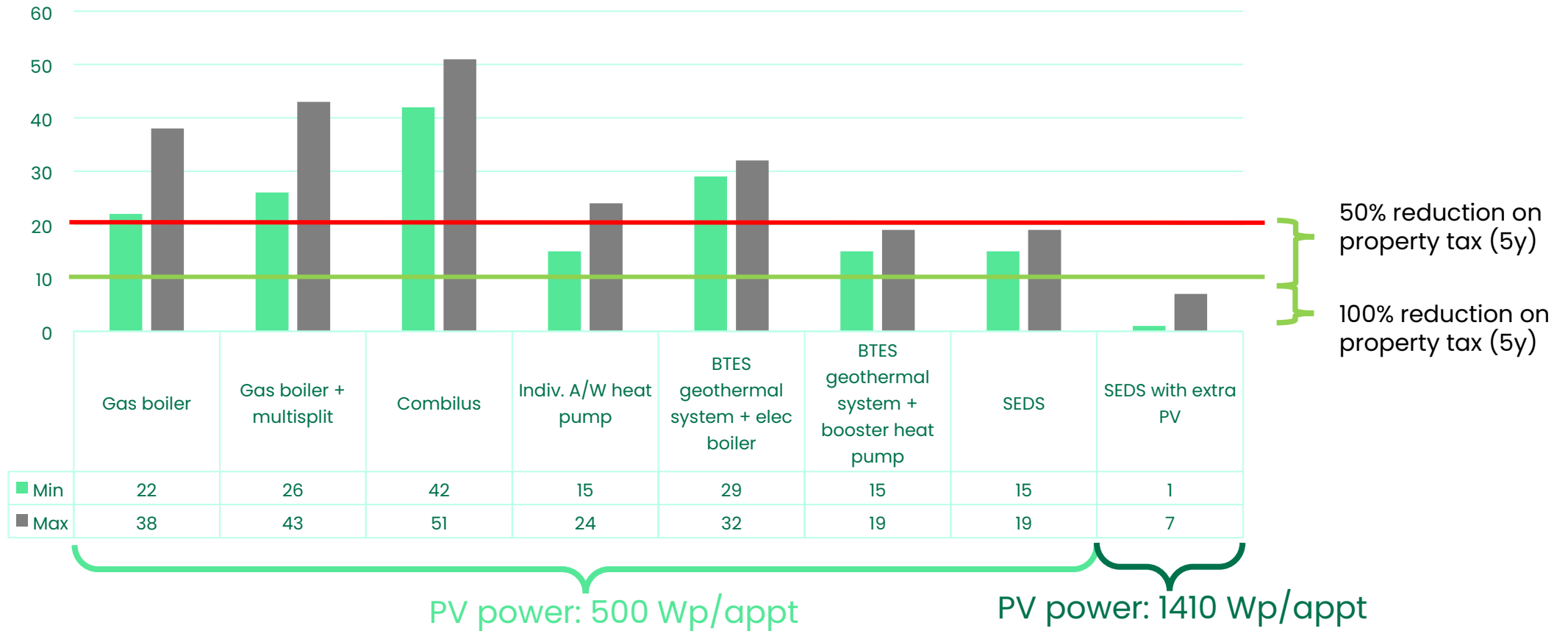
Flanders

CAPEX, incl. PV

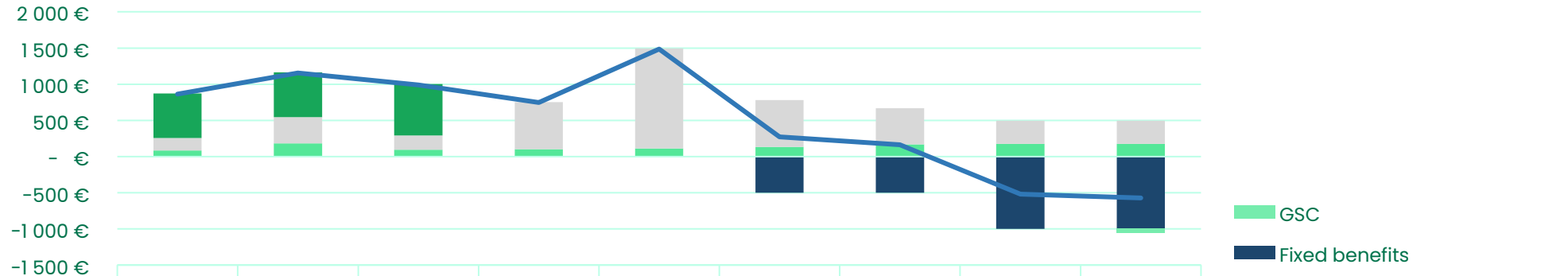


EPB, incl. PV

E-level



OPEX (first year)



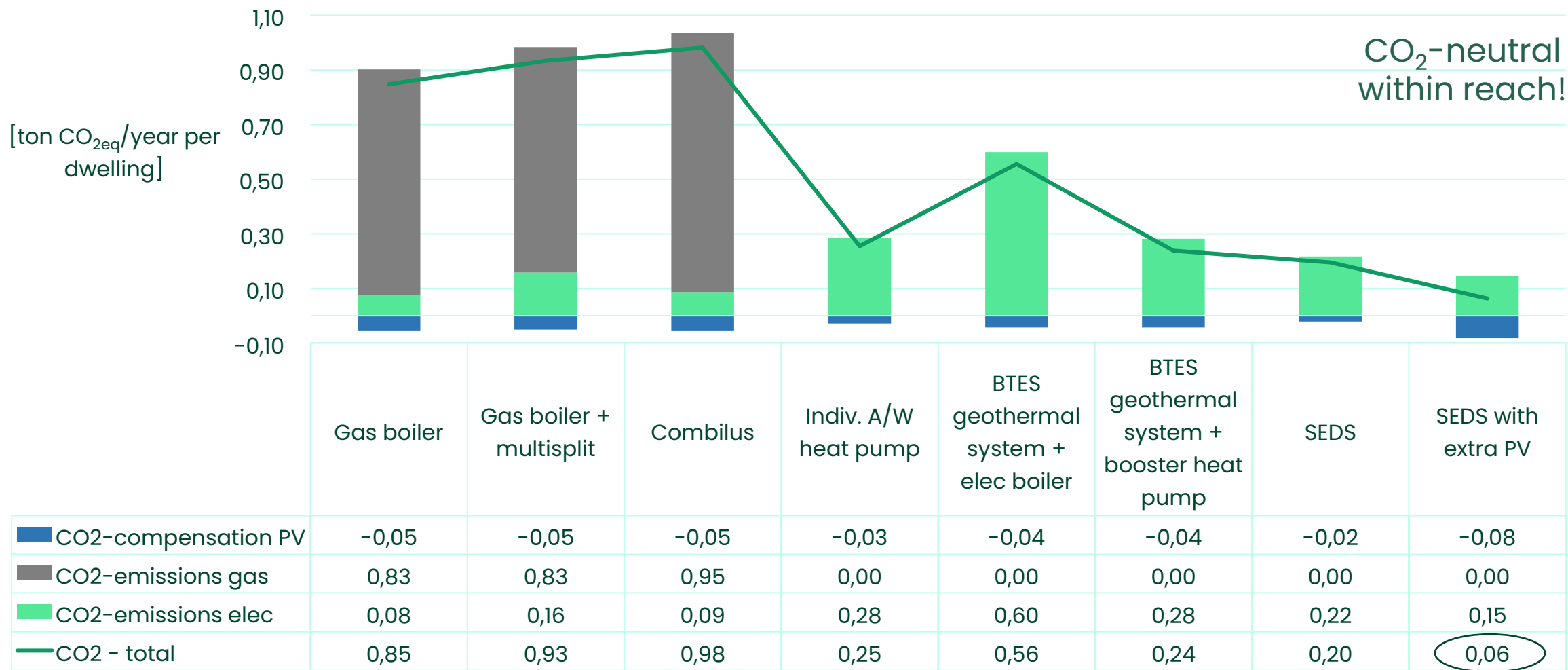
	Gas boiler	Gas boiler + multisplit	Combilus	Indiv. A/W heat pump	BTES geothermal system + elec boiler	BTES geothermal system + booster heat pump	SEDS	SEDS with extra PV	SEDS with extra PV & green certificates
GSC	- €	- €	- €	- €	- €	- €	- €	- €	-54 €
Fixed benefits	- €	- €	- €	- €	- €	-500 €	-500 €	-1 000 €	-1 000 €
Gas consumption	617 €	617 €	710 €	- €	- €	- €	- €	- €	- €
Electricity grid consumption*	174 €	364 €	198 €	651 €	1 381 €	647 €	496 €	322 €	322 €
Maintenance, repair	83 €	183 €	93 €	103 €	114 €	133 €	170 €	175 €	175 €
OPEX	864 €	1 154 €	991 €	748 €	1 487 €	272 €	163 €	-519 €	-573 €

*Only for heating, cooling, DHW and ventilation

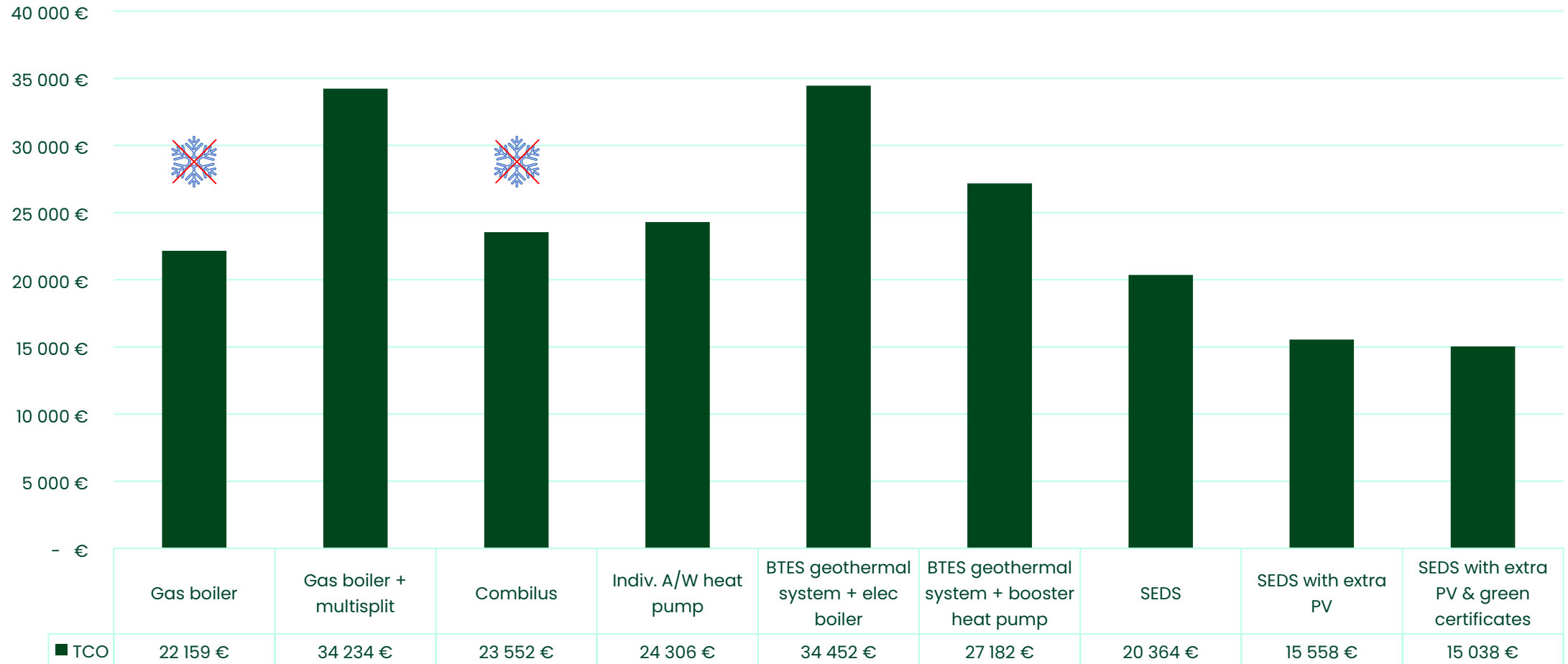
PV power: 500 Wp/appt

PV power: 1410 Wp/appt

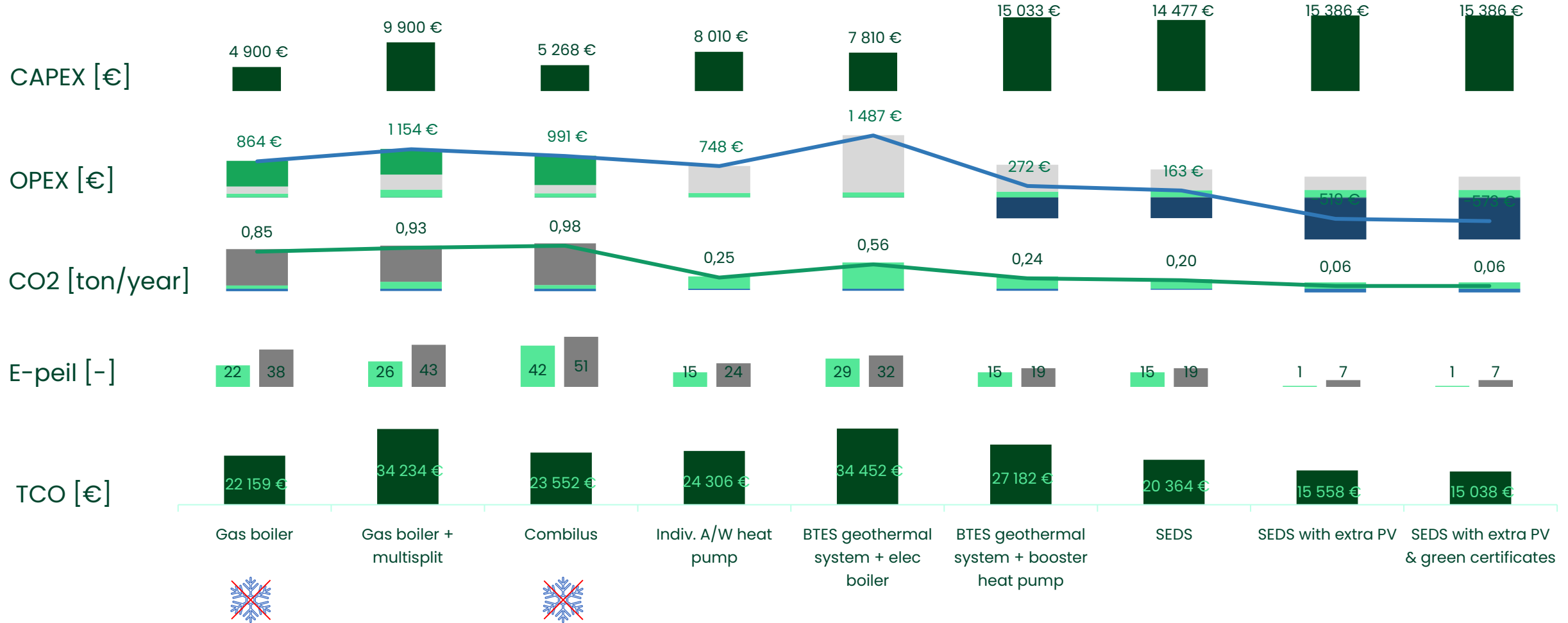
CO₂



TCO over 20 years

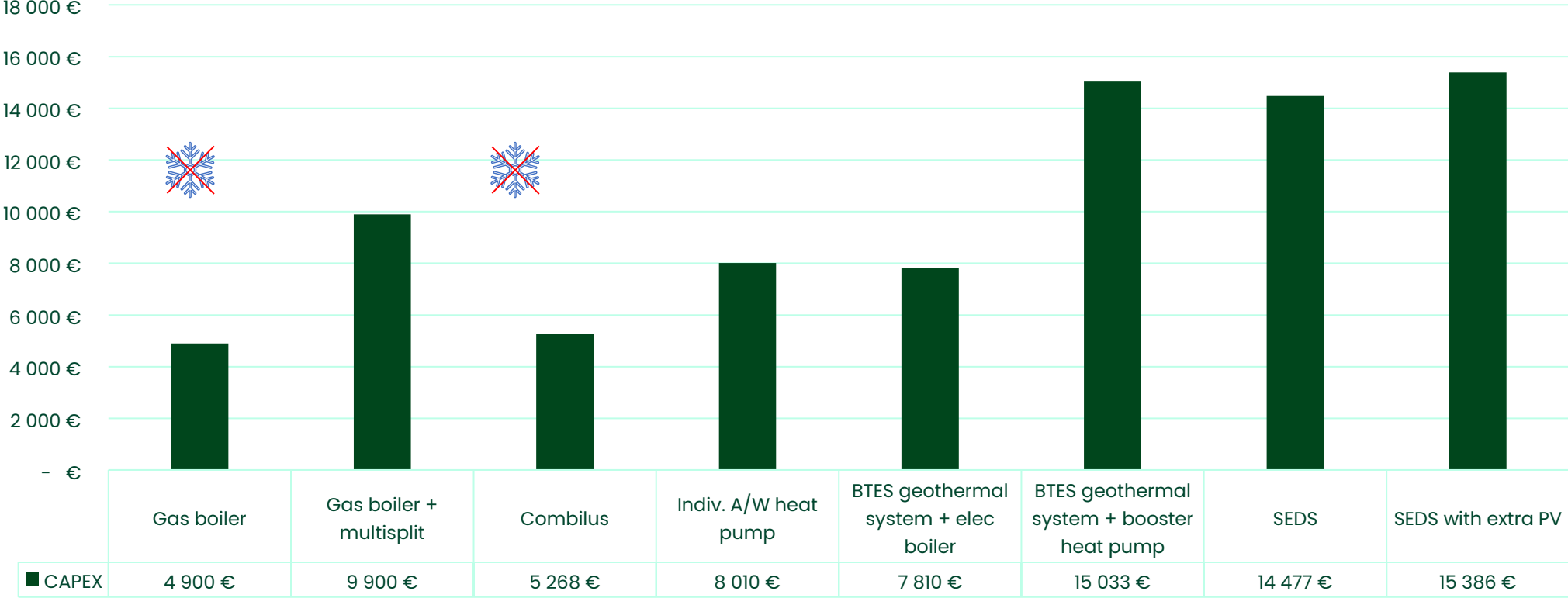


OVERVIEW



Brussels

CAPEX, incl. PV

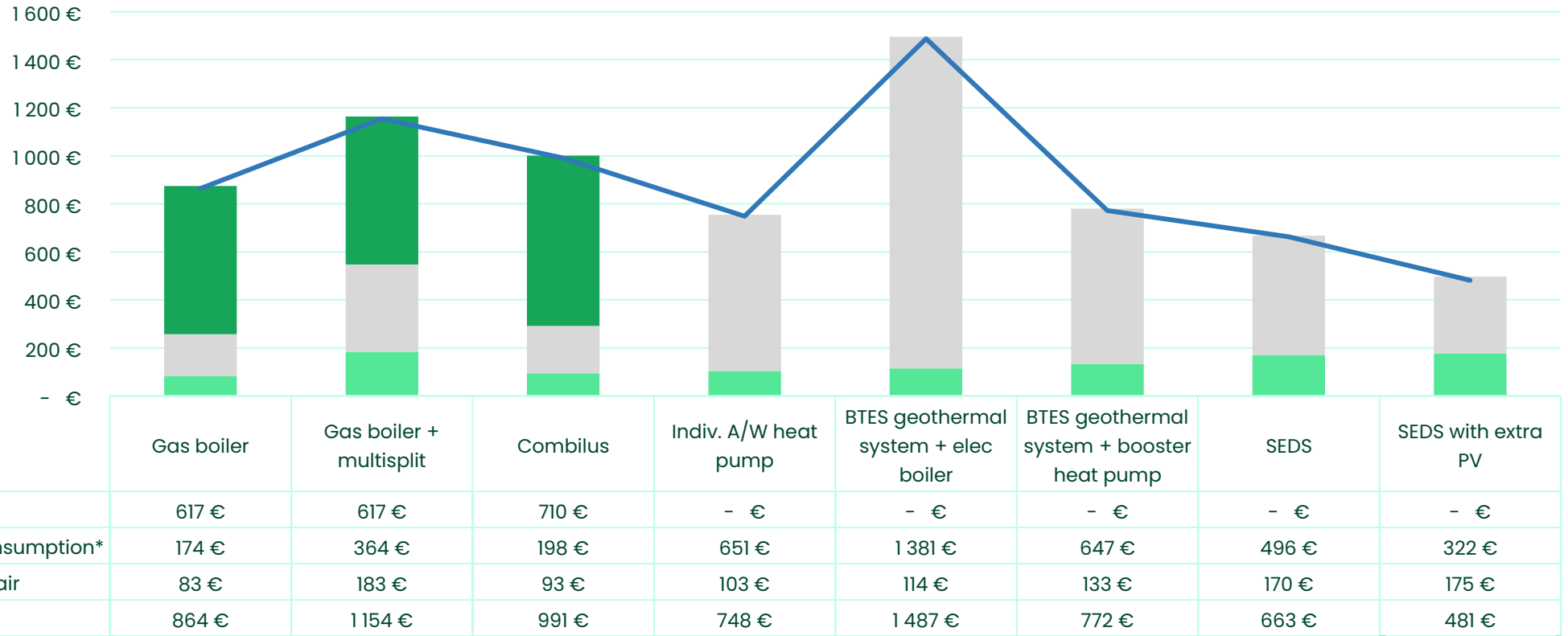


PV power: 35,5 kWp
(500 W/apartment)

PV power: 100 kWp
(1 410 W/apartment)

OPEX (first year)

In Brussels,
no reduction on
property tax
and no green
certificates

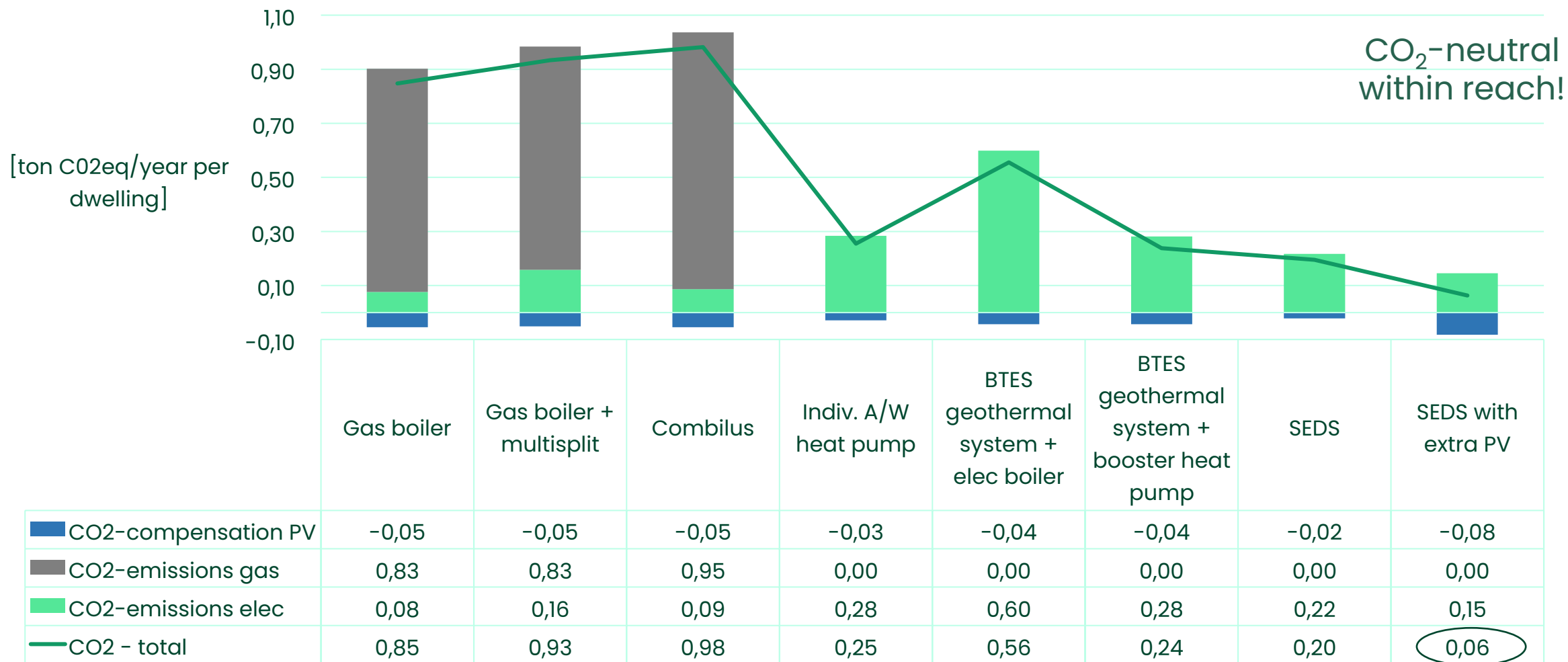


*Only for heating, cooling, DHW and ventilation

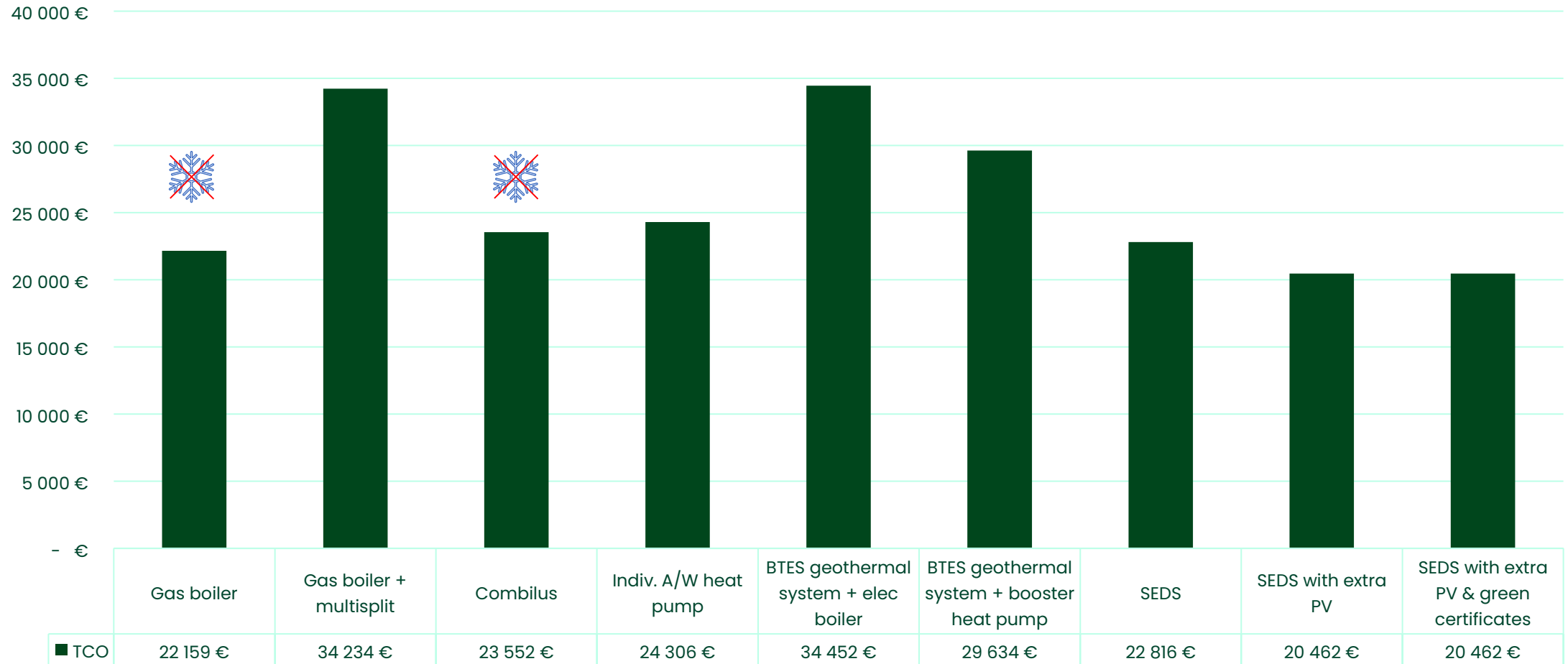
PV power: 35,5 kWp

PV power: 100 kWp

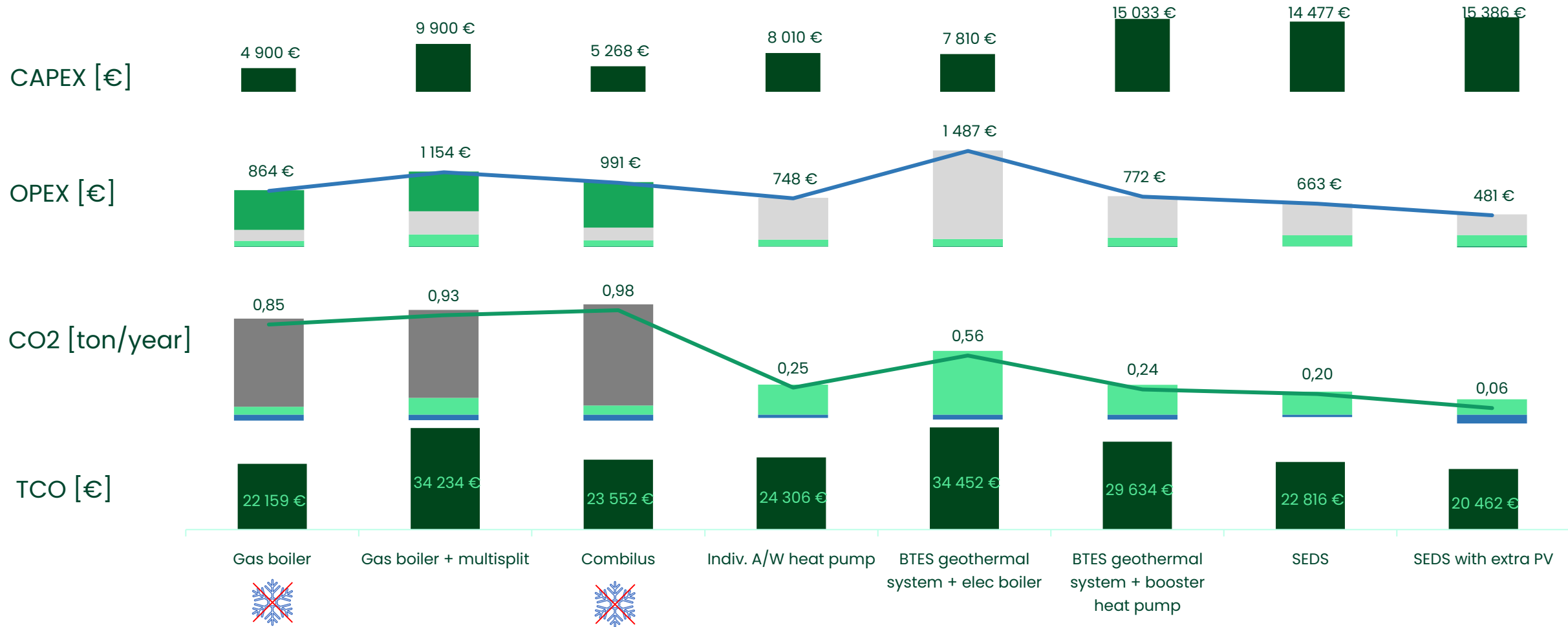
CO₂



TCO over 20 years



OVERVIEW



SUREAL

SUSTAINABILITY EXPERTS

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Date : 23/02/2022

Reviewer : Filip Grillet

Date review : 24/02/2022