

TecSolaris Profitability



More than just a roof – Your investment in an independent, sustainable future

A roof offers protection. TecSolaris goes even more. With our innovative 4-in-1 climate roof system, we combine photovoltaics, solar thermal energy, insulation, and roof covering in one aesthetic and durable solution.

With the the German Building Energy Act (GEG), rising CO₂ taxes, and the European climate package “Fit for 55,” it is clear: if you own or are planning a building, you must invest in renewable energies – not someday, but now.

From 2024 on, new buildings are required to cover at least 65% of their heating demand with renewable energy. At the same time, CO₂ charges for fossil fuels will rise to as much as €300 per ton by 2030 – putting direct financial pressure on gas and oil heating systems.

TecSolaris offers the perfect response to these challenges: It is not only eligible for subsidies and is long-lasting – it also permanently reduces energy costs while protecting against regulatory surcharges.



Your roof must do more in the future – TecSolaris shows how!

The following sample calculations clearly demonstrate how this technology pays off in practice – for both residential and commercial properties, in new construction as well as in renovation – with impressive efficiency, significant CO₂ savings, and a short payback period.

General Parameters		Residential Building	
Roof area (sqm)		120	
Energy consumption per sqm (kWh / year)		30	
Total energy consumption (kWh / year)		3.600	
Heat consumption per sqm (kWh / year)		40	
Total heat consumption (kWh / year)		4.800	
Electricity costs (EUR/kWh)		0,32	
Reimbursement for feed to the grid (EUR/kWh)		0,06	
Heating costs, gas (EUR/kWh)		0,13	
Switch to heat pump (yes/no)		ja	
CO2 tax (EUR/ton)		100	
CO2 reduction from electricity self-use (tons/kWh)		0,000775	
Revenue from excess energy sales (tons/kWh)		0,00049	
System parameters	TecSolaris	Conventional roof with rooftop PV	
Costs TecSolaris BIPVT-Roof (EUR/sqm)	415		
Costs conventional Roof (EUR/sqm)			303
Costs separate PV-System (EUR/sqm)			180
Costs Installation TecSolaris (EUR/sqm)	79		
Costs installation conventional Roof (EUR/sqm)			89
Costs installation of PV-System (EUR/sqm)			100
Costs Electrics (storage, inverter, cables)	7.200		7.200
Maximum usable roof area for PV	100%		40%
Average usable operating time (hours/day)	5,5		5
Peak power generation (Wh/m ²)	170		170
Peak heat generation (Wh/m ²)	180		
Subsidy rate on roof	20%		15%
Costs	TecSolaris	Conventional roof	
Roof & system costs (incl. installation)	66.480 €		67.680 €
Subsidy amount	11.856 €		9.072 €
Roof & system costs including subsidy	54.624 €		58.608 €
Power supply	TecSolaris	Conventional roof	
Annual electricity generation (kWh)	40.953		14.892
Coverage of electricity demand	100%		100%
Savings from self-generation	1.152 €		1.152 €
Compensation from feed-in	2.054 €		390 €
Heat supply	TecSolaris	Conventional roof	
Heat contribution from roof system	35%		0%
Heating cost savings (gas)	n/a		n/a
Heating cost savings (heat pump incl. PV electricity)	624 €		624 €
CO ₂ reduction	TecSolaris	Conventional roof	
CO ₂ reduction through electricity generation (tons)	32		12
CO ₂ reduction through heat production with gas (tons)	n/a		n/a
CO ₂ reduction heat production with heat pump (tons)	4		4
Savings on CO ₂ levies (based on selected heat source)	3.546 €		1.526 €
	TecSolaris	Conventional roof	
Total annual savings	7.376 €		3.692 €
Return on investment per year	14%		6%
Payback period (years)	7		16

General Parameters		Commercial building	
Roof area (sqm)		400	
Energy consumption per sqm (kWh / year)		175	
Total energy consumption (kWh / year)		70.000	
Heat consumption per sqm (kWh / year)		200	
Total heat consumption (kWh / year)		80.000	
Electricity costs (EUR/kWh)		0,32	
Reimbursement for feed to the grid (EUR/kWh)		0,16	
Heating costs, gas (EUR/kWh)		0,13	
Switch to heat pump (yes/no)		ja	
CO2 tax (EUR/ton)		100	
CO2 reduction from electricity self-use (tons/kWh)		0,000775	
Revenue from excess energy sales (tons/kWh)		0,00049	
System parameters	TecSolaris	Conventional roof with rooftop PV	
Costs TecSolaris BIPVT-Roof (EUR/sqm)	399		
Costs conventional Roof (EUR/sqm)		238	
Costs separate PV-System (EUR/sqm)		180	
Costs Installation TecSolaris (EUR/sqm)	68		
Costs installation conventional Roof (EUR/sqm)		77	
Costs installation of PV-System (EUR/sqm)		100	
Costs Electrics (storage, inverter, cables)	55.000	55.000	
Maximum usable roof area for PV	100%	60%	
Average usable operating time (hours/day)	5,5	5	
Peak power generation (Wh/m²)	180	180	
Peak heat generation (Wh/m²)	170		
Subsidy rate on roof	20%	15%	
Costs	TecSolaris	konventionelles Dach	
Roof & system costs (incl. installation)	241.800 €	248.200 €	
Subsidy amount	37.360 €	28.980 €	
Roof & system costs including subsidy	204.440 €	219.220 €	
Power supply	TecSolaris	Conventional roof	
Annual electricity generation (kWh)	144.540	78.840	
Coverage of electricity demand	100%	100%	
Savings from self-generation	22.400 €	22.400 €	
Compensation from feed-in	3.606 €	- €	
Heat supply	TecSolaris	Conventional roof	
Heat contribution from roof system	35%	0%	
Heating cost savings (gas)	n/a	n/a	
Heating cost savings (heat pump incl. PV electricity)	25.600 €	2.829 €	
CO ₂ reduction	TecSolaris	Conventional roof	
CO ₂ reduction through electricity generation (tons)	112	61	
CO ₂ reduction through heat production with gas (tons)	n/a	n/a	
CO ₂ reduction heat production with heat pump (tons)	62	7	
Savings on CO ₂ levies (based on selected heat source)	17.402 €	6.795 €	
	TecSolaris	Conventional roof	
Total annual savings	69.008 €	32.024 €	
Return on investment per year	34%	15%	
Payback period (years)	3	7	

Why TecSolaris? – Your advantages at a glance

- **Future-proof:**
Meets all requirements of the Building Energy Act (GEG 2024) – ideal for new construction and retrofits.
- **Cut costs, avoid taxes:**
By generating your own electricity and heat, you permanently avoid rising CO₂ costs.
- **Full use of roof surface:**
Up to 100% coverage with electricity and heat – compared to just 40–60% with conventional roofs.
- **Climate protection contribution:**
Reduce emissions by up to 800 tons of CO₂ annually (on large commercial roofs).
- **Compliant with “Fit for 55”:**
Already meets the EU building requirements that will become mandatory by 2030.
- **Eligible for up to 35% subsidies:**
Thanks to classification as a solar thermal collector under BEG 2030 – in addition to 0% VAT on all PV components.
- **Long-term investment protection:**
Over 30 years of system life, full recyclability, patented construction.
- **Walkable, aesthetic, integrated:**
No patchwork – but a true architectural element with function.

The era of fossil energy sources is coming to an end – politically, financially, and technically. With TecSolaris, you choose a system that makes you independent, drastically lowers your energy costs, and stays ahead of legal requirements.

Get expert advice now and optimize your project economically – with the TecSolaris climate roof.

