PEAKPLAN

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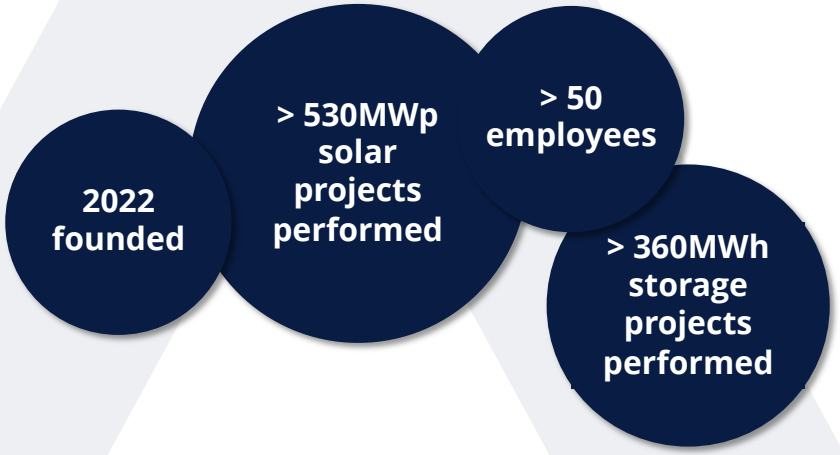
PEAKPLAN drives the energy transition („Energiewende“) into the economy while facilitating all sectors (“Sektorenkopplung”)

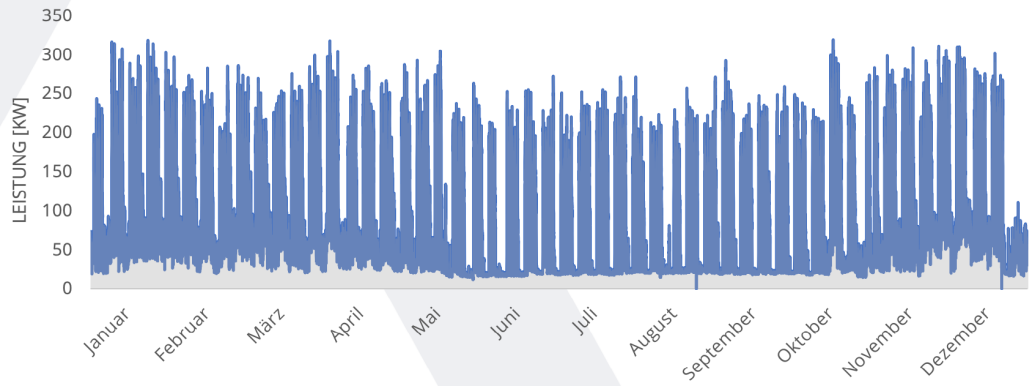
- We effectively and efficiently combine
  - solar,
  - storage,
  - heating and
  - charging infrastructure

  to achieve economic viability in a holistic approach.
- Our customized energy solutions are provided to installation companies, high energy-consuming businesses, agricultural and construction companies, utilities, and investors.
- From the initial idea to conceptualization, detailed planning, and hardware delivery, PEAKPLAN serves as your partner and single point of contact throughout the entire process.



Case I

Optimizing self-consumption with storage



Results		Optimizing self-consumption with storage		
	No Storage	73 kWh / 50 kW	111 kWh / 50 kW	146 kWh / 100 kW
Demand from the grid	560.160 kWh	545.420 kWh	537.800 kWh	533.220 kWh
Feed in solar	135.060 kWh	119.490 kWh	111.510 kWh	106.630 kWh
Self-consumption	270.620 kWh	286.190 kWh	294.520 kWh	299.040 kWh
Self consumption rate	66 %	70 %	72 %	73 %
Self sufficiency	32 %	34 %	35 %	35 %
Energy from the storage	–	14.740 kWh	22.800 kWh	26.940 kWh
Throughput cycles	–	213	185	195

Input data	
Consumption per year	830.576 kWh
Peak	319 kW
Full load hours	2.602 h
Solar	412 kWp
Solar generation	405.670 kWh

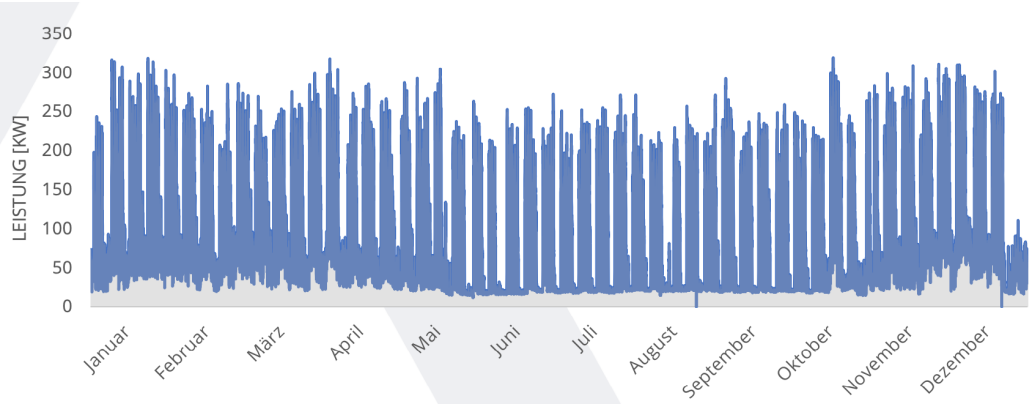
Recommendation

According to the simulation results, the implementation of a storage is questionable. The self-consumption ratio does not show significant improvements as indicated by the comparison. This is mainly because the electricity generated by the solar system is mostly consumed by users instantly.

However, if storage is still preferred, the option of 73 kWh / 50 kW seems to be the most appropriate choice due to its higher throughput cycles and lower investment costs.

Case II

PEAK SHAVING



Results		PEAK SHAVING			
	No Storage	73 kWh / 50 kW	146 kWh / 100 kW	219 kWh / 150 kW	292 kWh / 200 kW
Demand from the grid	830.580 kWh	549.910 kWh	550.020 kWh	550.180 kWh	550.430 kWh
Peak	319 kW	271 kW	251 kW	238 kW	227 kW
Peak reduction by storage		48 kW	67 kW	80 kW	91 kW
Energy usage to reduce the peak		430 kWh	1.420 kWh	2.670 kWh	4.430 kWh
Throughput cycles		6,58	10,77	13,67	17,08

Input data	
Consumption per year	830.576 kWh
Peak	319 kW
Full load hours	2.602 h
Solar	412 kWp
Solar generation	405.670 kWh

Recommendation

The simulation has shown the potential to decrease the peak by up to 91 kW

However, the most efficient utilization of capacity is achieved with the smaller storage unit of 73 kWh / 50 kW, considering the reduction of 48 kW in peak demand.

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CUSTOM ENERGY SOLUTIONS