SOLARPVSIZER.COM

Solar PV Sizer House Barca

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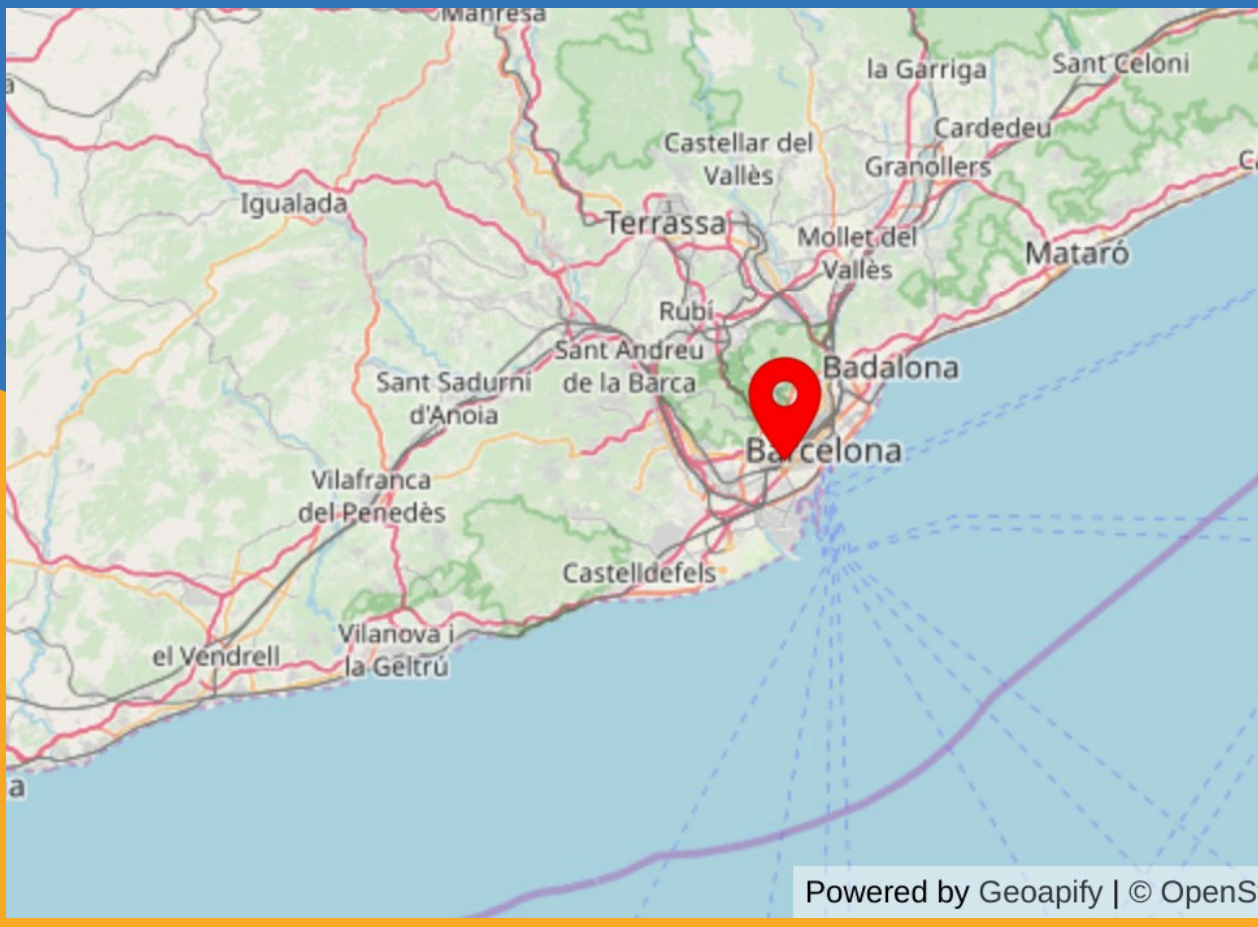
This report produces an initial, data-driven indication of the solar photovoltaic system that will suit a typical household or small business. It draws on local solar resource data, your estimated electricity use, and widely accepted engineering guidelines to propose a balanced combination of panels, inverter capacity, and optional battery storage.

Roof area, orientation, tilt, shading, & seasonal variation are all considered to give a realistic picture of energy yield & physical space needed.

DISCLAIMER

This report is a guide, not a final design. Real-world output will vary with equipment choice, shading, weather, workmanship, and maintenance. Have a qualified installer verify the layout, meet wiring rules, and give a detailed quote before you commit. Use these figures only to judge whether solar is likely worthwhile for you.

YOUR LOCATION



Barcelona, Spain

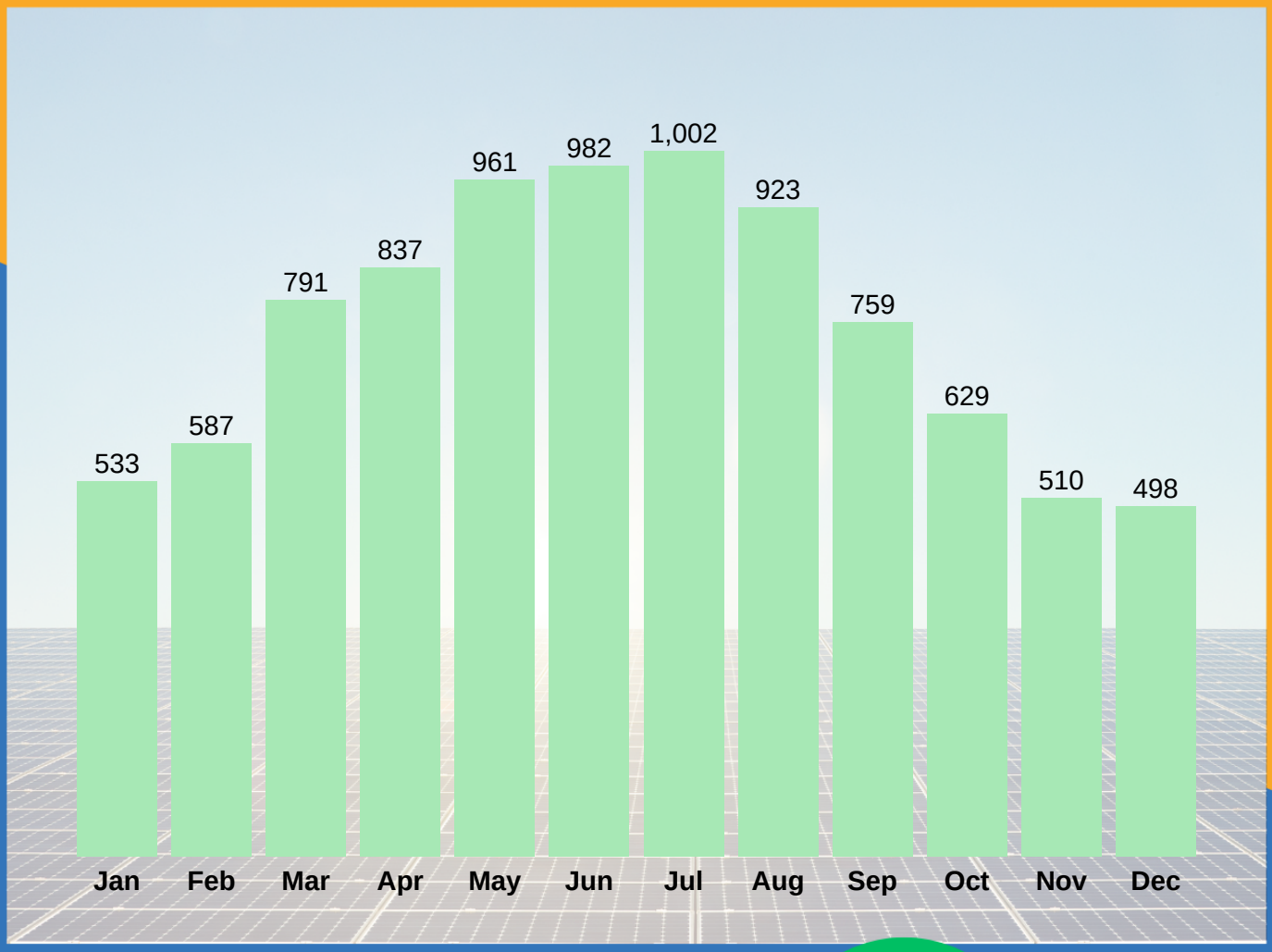
Very good solar potential

YOUR INPUTS

These are the details you entered and are required to calculate your system size:

MONTHLY UNITS	ARRAY DIRECTION	ROOF SLOPE	BATTERY HOURS
750kWh	**S**	**22°**	**2hrs**

POTENTIAL SOLAR PRODUCTION PER MONTH (KWH)



Best Month
1,002 kWh

Ave Month
750 kWh

Worst Month
498 kWh

POTENTIAL PRODUCTION

Annual Solar Production: 9,005 kWh
Average monthly production: 750 kWh
Site yield: 1,529 kWh / kWp / yr

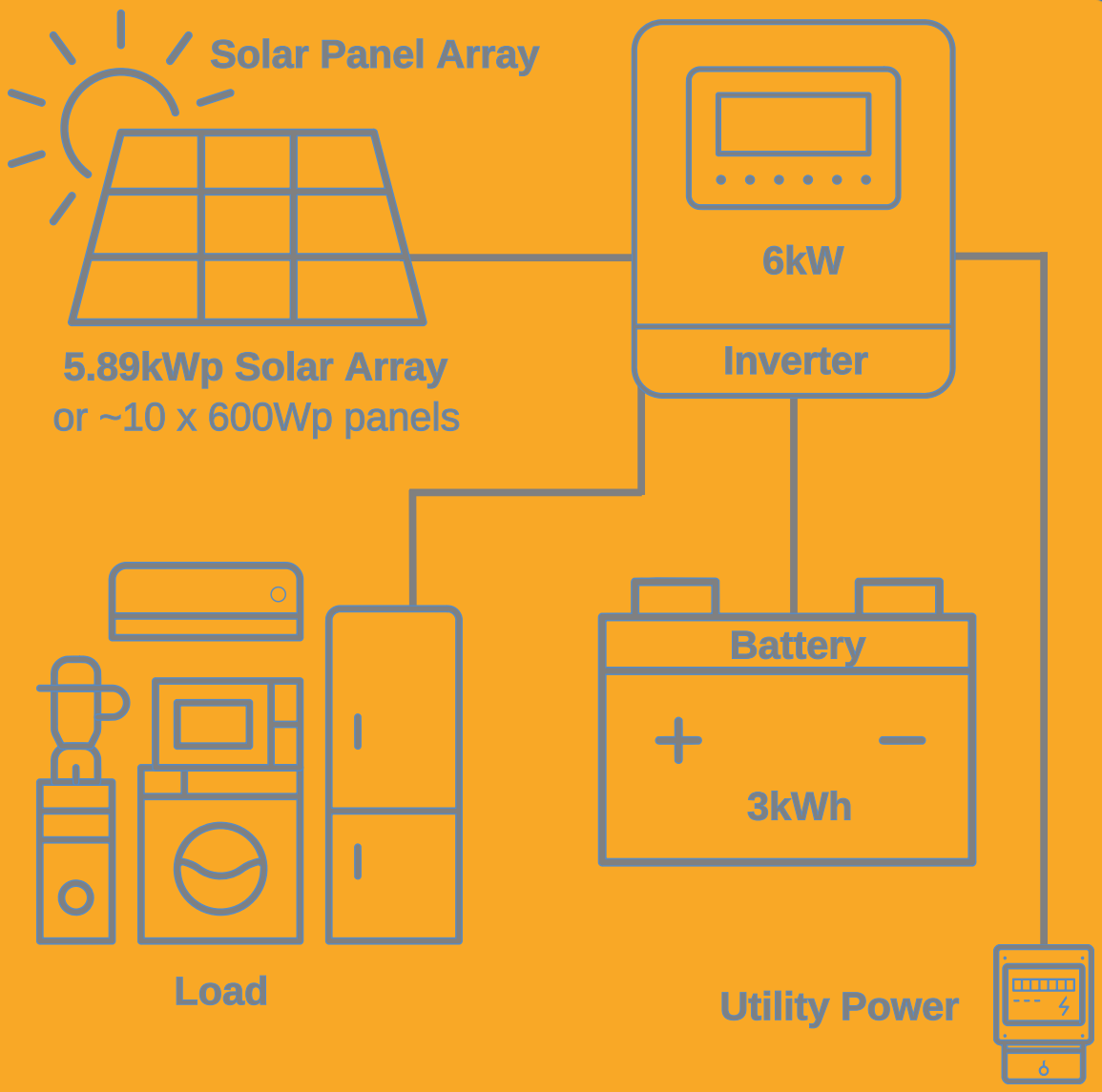
The chart above shows the monthly potential output in kWh or "Units" of your solar panels, assuming the energy has somewhere to go. If your battery is full and your electricity usage is low, the panels won't be able to produce at their maximum capacity.

ASSUMPTIONS: STANDARD TEST CONDITIONS

Panel temp : 25 °C | AM : 1.5 | Irradiance : 1000 W/m²

SYSTEM RECOMMENDATIONS

SOLAR ARRAY	INVERTER SIZE	BATTERY SIZE	ROOF SPACE
5.89 kWp (10 x 600Wp Panels)	6kW Solar Hybrid Inverter	3kWh Li-ion Usable Capacity	30m² | 320ft² Available Area



TYPICAL SYSTEM LAYOUT

MORE INFORMATION

INVERTER RATING

Any design that contains a battery is classed as a hybrid system, so the inverter must supply both solar power and household loads during an outage. We therefore never recommend less than 5 kW even if the array alone could run on a smaller grid-tie unit.

Any system with a battery needs a hybrid inverter of at least 5 kW, and the battery bank is enlarged when necessary so it can supply that power.

BATTERY CAPACITY

Storage is sized for your chosen backup hours; we then make sure the bank can deliver the inverter's full power. Modern lithium batteries are rated at 1 C, so the kilowatt-hours must be at least equal to the inverter kilowatts. If the autonomy calculation gives a smaller figure, we round the battery up to match.

ARRAY POWER

Panel wattage meets your annual kilowatt-hour target for this location. To future-proof for an electric vehicle or appliance growth, upsizing the array by 15 – 25 percent is a safe buffer.