

Your house in Islington, Greater London could generate £848 worth of electricity each year by installing solar panels on your roof

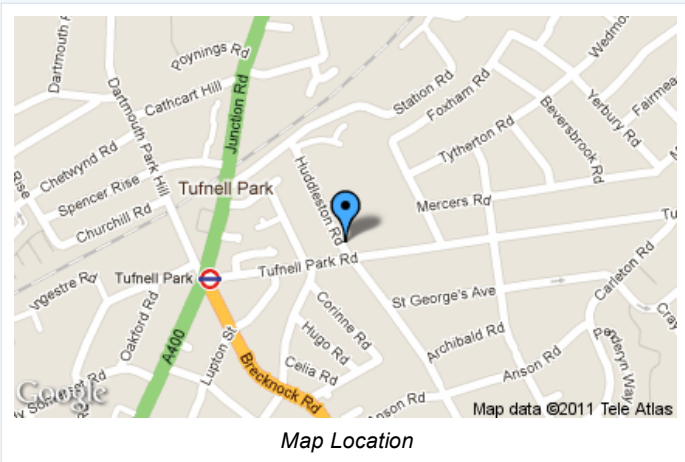
- The area of your roof is 21.2m² and the roof faces South West. Your roof is big enough to fit 10 solar panels which would cover 12.8m² of your roof area
- The solar energy falling on your roof averages 3.06kWh/m² per day. The average temperature in Islington is 11°C
- Installing 10 solar panels with a peak power of 185Watts each on your roof in Islington could generate 1,652kWh of electricity a year
- This electricity is worth £848 from a combination of the government's feed in tariff (worth £715 a year), reduced electricity bills (worth £107 a year) and your house supplying excess electricity back to your supplier (worth £26 a year)
- G.R.E.E.N. installs solar panel systems in Islington, Greater London and would be happy to provide you with a quote.

1 Your House and Roof Size

The area of your roof in Islington is 21.2m² and the roof faces South West (-113° from North). You have indicated that the roof is angled at 30° from horizontal.

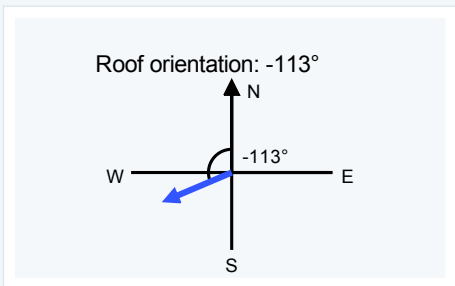
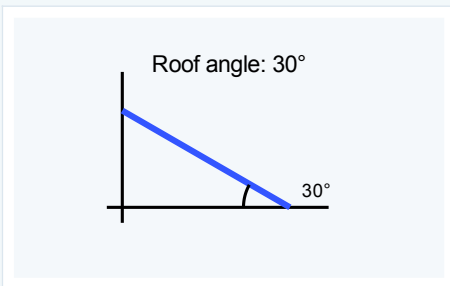
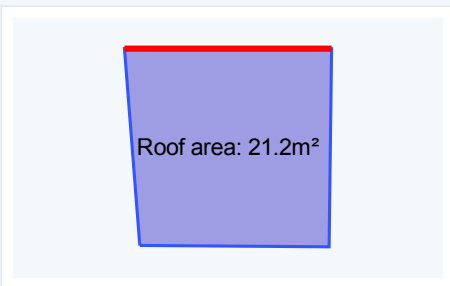
Your roof is big enough to fit 10 solar panels sized 809mm wide by 1,581mm high that generate 185Watts of peak power each. 10 solar panels would cover 12.8m² of your roof (60% of the roof area). In total the solar panels would generate 1,850Watts peak power.

Your house and roof



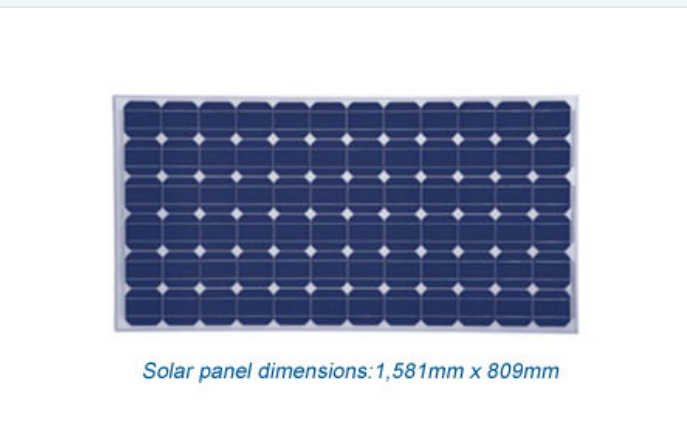
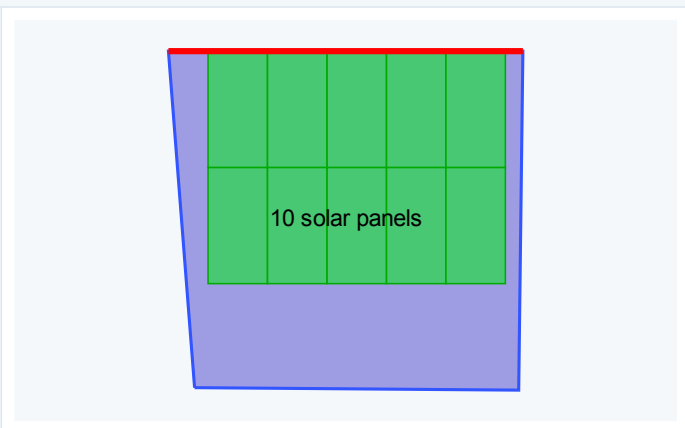
The area and orientation of your roof

We have calculated details of your roof based on the points you identified on the satellite photo. Your roof area is 21.2m². You have indicated that the roof is angled at 30° from horizontal. The optimum angle for solar panels on your roof is 39°. Your roof faces -113° from North.



Solar panels for your roof

We have calculated how many solar panels of size 809mm x 1,581mm could fit on your roof. We estimate that 10 panels oriented vertically could fit on your roof as shown in the diagram below.



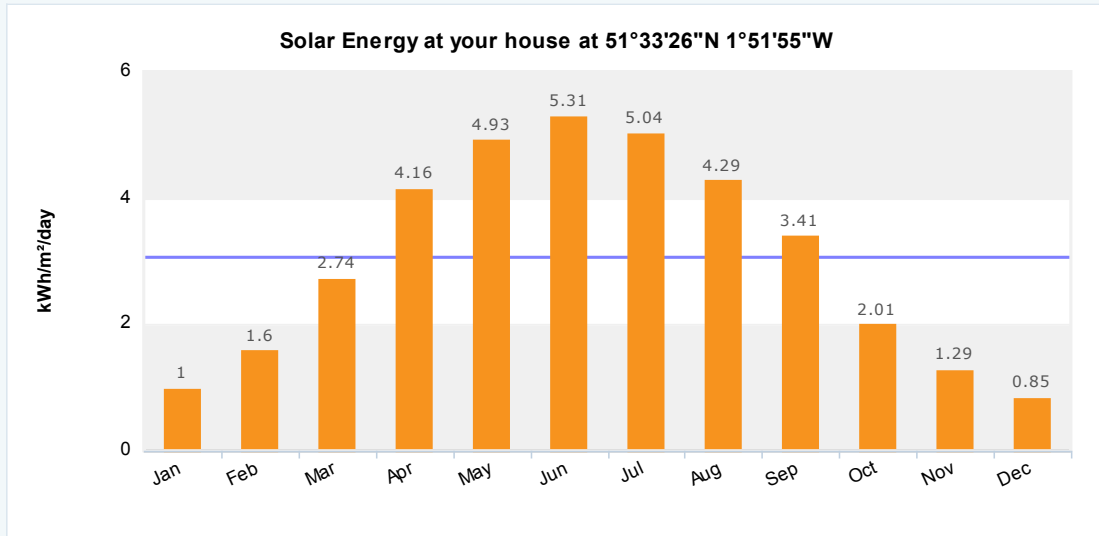
Annual Solar Energy, Temperature and Electricity Generated

Your roof is at a latitude and longitude of 51°33'26"N 1°51'55"W. The solar energy falling on your roof averages 3.06kWh/m² per day. The average temperature in Islington is 11°C. The temperature is important because solar panels are more efficient when the temperature is cooler.

Installing 10 solar panels with a peak power of 185Watts each on your roof could generate an average of 138kWh per month. This equates to 1,652kWh of electricity generated a year.

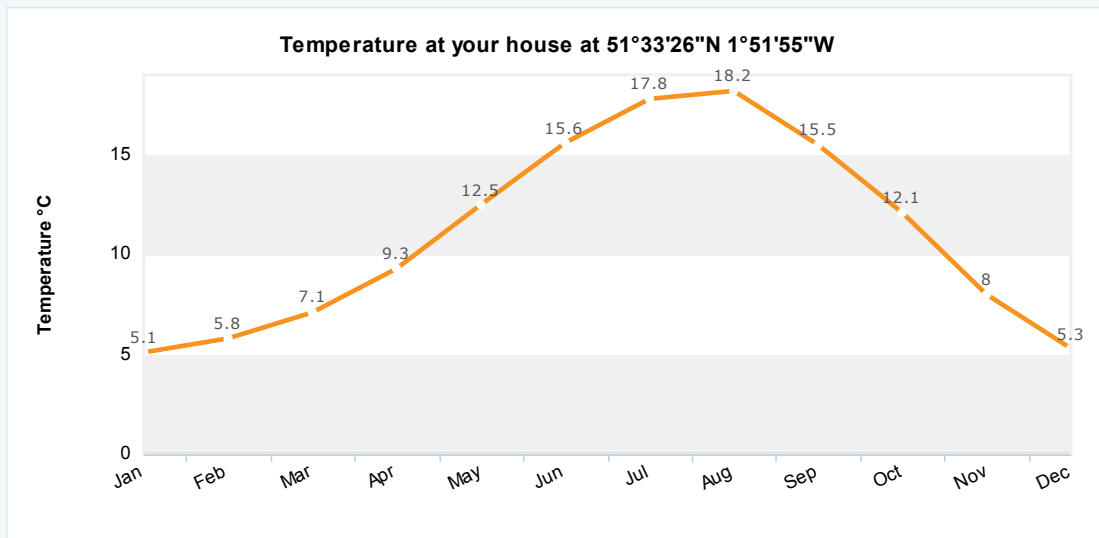
The solar energy on your roof

The solar energy falling on your roof averages 3.06kWh/m² per day. The best month for solar energy is June when your roof receives 5.31kWh/m²/day.



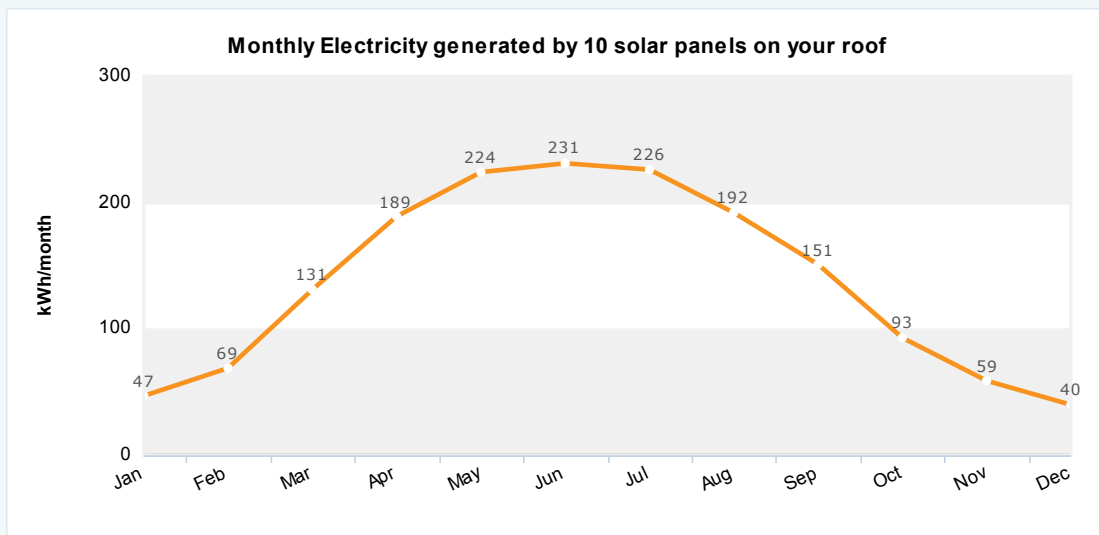
Average temperature in Islington

The average temperature in Islington is 11°C. August is typically the warmest month in Islington with an average temperature of 18.2°C.



Electricity generated by 10 solar panels on your roof

Installing 10 solar panels with a peak power of 185Watts each on your roof in Islington could generate an average of 138kWh per month. This equates to 1,652kWh of electricity generated a year. Your best month for producing electricity is June when 10 solar panels could produce 231kWh a month.



Generating this electricity could save you £848 a year in electricity costs. You save money in three ways:

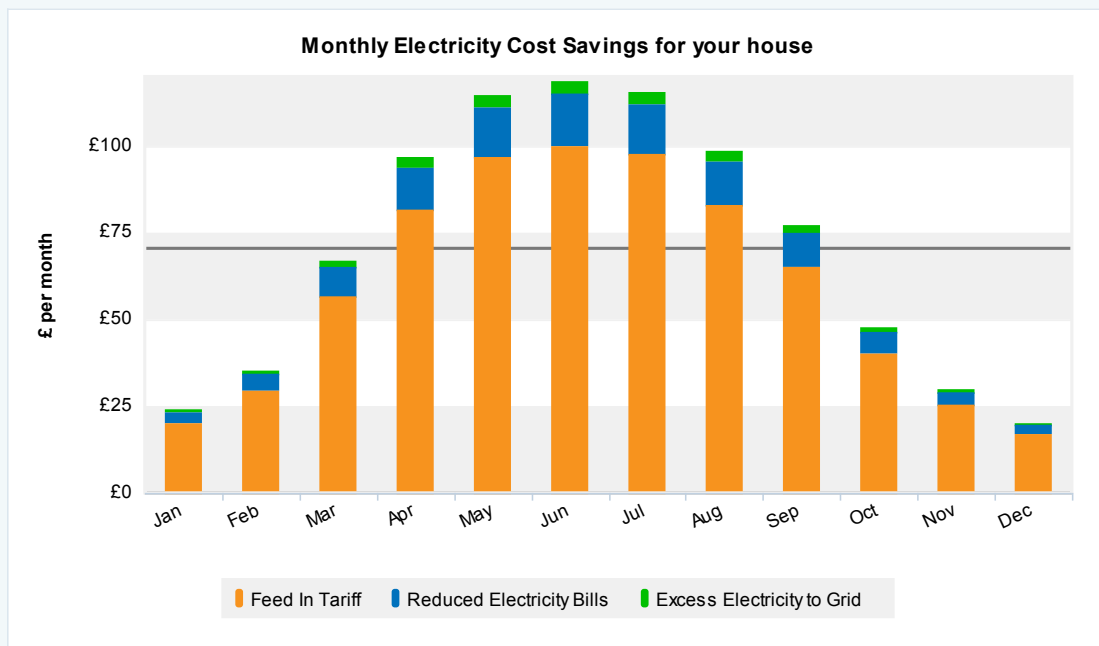
1. Feed-in Tariff: The government requires your electricity supplier to pay you based on the amount of electricity you generate. Your system which has a peak power of 1.9kW would be eligible for a feed-in tariff of **43.3p** per kWh.
2. Reduced electricity bills: Using the electricity you generate means you don't have to buy it from your supplier saving you their charges. We have used an electricity charge of **13.0p** per kWh. This is a standard electricity cost. We have assumed that you use 50% of the electricity you generate.
3. Supplying your excess electricity back to your electricity supplier: Your supplier is required to buy back excess electricity that you don't use at a rate of **3.1p** per kWh. We have assumed that 50% of the electricity you generate you supply back to your supplier.

Your electricity saving calculation

Component	Rate	Electricity	Your Saving	Comments
Feed in Tariff	43.3p per kWh	1,652kWh	£715.18	Government mandated payment for this system size
Reduced Electricity Bills	13.0p per kWh	826kWh	£107.36	Average UK charge for electricity is 13p per kWh
Excess electricity to your supplier	3.1p per kWh	826kWh	£25.60	Government mandated export tariff
TOTAL			£848.14	

Your monthly savings

The average amount you could save from this system is £71 per month. In June when this system could be expected to produce the maximum amount of electricity you could generate £119 worth of electricity.



Companies who install Solar Electricity Systems in Islington

G.R.E.E.N. installs solar panel systems in Islington, Greater London and would be happy to provide you with a quote.*



- SUNLINK SUMMER SPECIAL 3.84Kw NOW ONLY **£10,495**
- Global Renewable Electrical Energy Network is a UK market leader in Solar PV installations
- G.R.E.E.N. installs on average 10 systems a week in the UK. So far this year we have installed in London, Bedfordshire, Peterborough, Derbyshire, Lincolnshire, Hampshire, Suffolk, Norfolk, Hertfordshire, Oxfordshire, Wiltshire and many others.
- We guarantee all our installations and systems for a full ten years, with an independent warranty at no additional cost to the customer
- Get a quote from our team today. Visit our website at www.global-renewable.com

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WOULD YOU LIKE YOUR COMPANY'S DETAILS HERE?

- Do you want to market your products to people living in Central London?
- Please contact us for more details: email marketing@SolStats.com

Your house in Islington, Greater London could generate **£848** worth of electricity each year by installing solar panels on your roof. Take action TODAY to take advantage of this free source of energy!

Important Notes

Understanding Units Used

Electrical Energy is measured in Watt hours (Wh) or Kilowatt hours (kWh). One Watt hour of electricity is used when a 1 Watt appliance is switched on for 1 hour. So a 60Watt light bulb left on for an hour uses 60Wh of electrical energy. A 1kW electric radiator switched on for 2 hours uses 2kWh of electrical energy. A Kilowatt hour is equivalent to 1,000 Watt hours. (Note: electrical energy is also measured in Joules. One Watt hour is equivalent to 3,600 Joules.)

Solar Irradiation is measured in Kilowatt hours per square meter per day (kWh/m²/day). This is the amount of solar energy a square meter receives in a day. So if your roof gets 1kWh/m²/day and you have 10m² of roof area then your roof receives 10kWh per day. This solar energy is equivalent to running a 1kW electric radiator for 10 hours. The term 'Solar Energy' used in the report refers to the Solar Irradiation.

Solar Irradiation on your roof averages 3.06kWh/m² per day. This takes into account the angle and orientation of your roof. The maximum amount of solar irradiation you could receive at your house is 3.46kWh/m² per day. This would be received if your roof was angled at 39° to the horizontal and South facing.

Solar Panel Power is measured in Watts. A typical solar panel might generate 185Watts of Peak Power (see below for definition). A solar panel generating 185Watts for 10 hours would produce 1,850Watt hours (or 1.85kWh) of electrical energy.

Peak Power is the electrical power generated by a solar panel under Standard Test Conditions (STC). STC defines the solar irradiance as 1,000W/m², the temperature as 25°C and the air mass as AM1.5 (air mass represents how much the sunlight is reduced as it passes through the Earth's atmosphere). Under these conditions the electrical power generated by the solar panel is measured and this is called the Peak Power of the panel.

Assumptions

There are many assumptions made in generating this report. The key assumptions are listed below.

Maximum number of solar panels: the number of solar panels that can fit on your roof has been estimated from the points you have identified as the edge of the roof and the roof angle. The actual number of solar panels that can be mounted on your roof may be different.

Inverter: An inverter converts the electricity the solar panels generate (DC) into electricity you can use in your house (AC). The inverter you choose as part of a solar energy system will determine the maximum number of solar panels you can install. The inverter will also affect the minimum number of solar panels needed due to the minimum voltage requirements of the inverter. In addition, the inverter you choose may require the solar panels to be connected up in groups (called 'strings') which may mean you need an even number of solar panels for the system to work.

Solar panel size and output: this report is based on solar panels sized 809mm wide by 1,581mm high - a standard solar panel size. The solar panels are assumed to output 185Watts peak power each - a standard peak power. The performance of any system you install will depend on the specific panels you use.

Shadowing: the calculation assumes that the solar panels on the roof are not shadowed by other buildings, trees or other objects that reduce the sunlight falling on the panels.

System Losses: The estimated loss due to system losses due to items such as cabling and inverters is 10%. This is a standard system loss percentage.

Panel mounting: This report assumes that the solar panels on your roof are free-standing.

Electricity consumed: This report assumes that 50% of the electricity you generate is used by you in your house. The remainder (50%) is fed back to your electricity supplier. These percentages are standard values.

Electricity cost: The cost of your electricity is assumed to be 13p per kWh. This is a standard electricity cost.

Roof structure: This report does not consider whether your roof is strong enough to install solar panels. This would need to be checked before any installation.

Planning permission: Our understanding is that for most cases in England installing solar panels on your roof does not require planning permission - it is a 'permitted development'. You should check whether your installation will require planning permission. Your installer and the government planning portal at <http://www.planningportal.gov.uk> can provide more information.

*Solar Installers

Details of solar installers mentioned in a SolStats report represent introductions and not recommendations. We do not vet the installers and you should make your own decision regarding the suitability of a particular installer. The installers pay us a fee to be included in SolStats reports.

Data Sources

Solar panel dimensions and performance from Trinasol website, <http://www.trinasol.com>

Level of solar energy, average temperature and solar power calculation from the Photovoltaic Geographical Information System (PVGIS) and copyright European Communities 2011.

European country borders latitude and longitude data from <http://thematicmapping.org>

UK average electricity prices, feed-in tariff rates and export tariff rate from Ofgem (<http://www.ofgem.gov.uk>)

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Nothing in this report content constitutes advice of any sort as to what solar system you should install, or whether you should install anything at all. If you want to install a solar system you should always approach a reputable professional installer.