

1960s Bungalow, IP5 1JQ

Ken Brock –

He says:

The property was built in 1968 and had cavity fill inserted soon after that date.

The roof insulation was upgraded in conjunction with a scheme led by British Gas who installed additional glass fibre.

The property had Crittall double glazing initially but this has been upgraded in recent years with PVC windows.

Solar panels have been in use for water heating for five years. The original cost after grant was £2500 for flat panels.

Photo Voltaic (PV) panels were first considered some 5/6 years ago when I was installing the solar panels for hot water but the economics were not good. Last year I considered the matter again and found that the cost of installation had improved together with government grants and interest free loans made it a viable proposition and so went ahead with a scheme which was installed in January 2010.

PV panels installed 2010 using Sharp NU 180 panels giving max 2.16kw per hour. It is expected that I shall make a profit from FIT payments of £800 pa on top of some reduction of imported power.



There were no planning obligations. My main reasons with progressing all my projects were mainly economic and being conscious of the need to create a "greener" way of life.

I received grants of £400 from [the former] Clear Skies programme, for the Solar heating panels and £2500 for the PV installation from the Low Carbon Buildings Programme via the Energy Saving Trust.

We have a large garden and are almost self sufficient in soft fruit and vegetables in doing so much household waste is composted. Virtually all other waste materials are recycled by utilizing a church waste paper scheme and local authority services. Both my wife and I use local bus services when convenient.

Overview

Age, Type: 1915-2000, Domestic

Cost of measures: £11,000

Energy usage:

Electricity (3yr period)

Before PV panels – 4,568 kW

After PV Panels – 3,250 kW

Key features

- Solar hot water heating
- Solar PV panels
- PVC windows
- Wall & roof insulation

Professional Contacts

In both solar projects I had some support from Suffolk Coastal District Council although no planning applications were necessary.

❖ **East Green Energy**

<http://www.eastgreenenergy.co.uk/>

Telephone: 01394 380557

Freephone: 0800 011 4500

❖ **Mosscliff Environmental**

<http://www.mosscliff.co.uk/>

Telephone: 01379 388080

Further assistance was given by Scottish and Southern Energy plc who assisted with grant applications etc.

I would recommend all of the above mentioned companies & organisations.

If you have any specific questions about this case study, these can be directed to the building owner via the website

www.greensuffolk.org/sgbn

Evaluation

I originally designed our bungalow and had it built. If I were to go through the process again I would certainly put greater emphasis on insulation at the building stage and would probably install ground source heat pumps which were not readily available in 1968; although I was aware of some through Technical College. In terms of the 2.16KWp PV performance:

- 1) The payment received for power generated and exported for the first nine months of the new feed in tariff was £762 (1st April - 31st December)
- 2) The total generation for the first 12 month period since installation (31st Jan - 30th Jan 2011) was 2080 kw of which approx 55% was exported.
- 3) Up to December 31st over 800kw. of generated electricity was used which saved over £100 on my discount daily tariff.

Awards

We have received some media attention from the local press and BBC Radio Suffolk and also from the Open University who produced an article in the Independent.