



beauty & style, naturally

Self Sufficiency Guide

Many Timber Log Chalets are positioned in isolated areas, so for environmental or financial reasons with connecting services from the National Utility companies it becomes viable and often desirable to use alternative methods.

Solar Hot water systems

This usually consists of a Solar Collector (which is usually positioned on a roof), a Tank, and Hydraulics. There are many manufacturers on the market who usually loop you into a Government grant. They cost little or nothing to run and maintain. More sophisticated systems include a Photovoltaic panel powering a variable speed solar electric pump and a more efficient antifreeze system.

Ground Store heat pumps

These are based on a simple piece of technology which utilises heat from the sun which is stored in the ground via a ground collector which is pumped to a heat store. Roughly 2 – 2½ times the floor area of the house. The pipes can be horizontal or vertical and in stony ground a bore hole can be utilized. The pipes contain a mixture of glycol and water as the system is so efficient the return feed is usually at a temperature of approximately minus 2 degrees.

In the summer it is possible to reverse the system and use it as a means of cooling the property.

Solid Fuel burners

If you have a renewable source of suitable logs then this system is the oldest, easiest and cheapest way to provide heat for your Timber log cabin. There are hundreds of systems available from a simple small wood burner to a piped hot air system. The installation of a flu is just as easy and simple as a traditional house, and should be done by an appropriately qualified tradesman.

Biomatic heating systems are pretty efficient and burn many things including recycled pellets. They are a clean organic product manufactured from a by-product of sawmills and as such it does not reduce forest resources.

Rain harvesting

The better and more expensive systems involve split storage of a potable (drinkable) supply and water for any other uses. Rainwater is collected (harvested) via a standard gutter and drainpipe system and grey water is collected from bath, shower, and wash basins then stored in tanks for all year round use. Apart from reducing consumption from the utilities, it also has the added advantage of making us think about every pint of water consumed, which cannot be a bad thing.

Sewage Treatment

Water can be treated continuously at a very low cost via a reed bed sewage system where water passes through it supporting a variety of plant and animal life before returning safely to the environment.

Small underground sewage treatment plants are available, which utilizes naturally occurring micro organisms, to rapidly degrade solid matter, and via a settlement area water can then be discharged safely into a waterway. Occasionally the solids need to be removed but again these have been safely dealt with.

Composting toilets

Many waterless self-contained toilets are available from around the world. In the best known system, there is no burning, a chemical or septic tank. Dual fans operate in conjunction with natural microbe action around a shaped aeration basket preparing the materials for later composting

Solar Generators:

Photo Voltaics Panels are a method developed to produce electricity directly from Solar Energy. The power can be stored in batteries and used as and when required via an inverter to provide mains voltage electricity.

Wind Generators:

Electrical power can be provided from a variety of turbines, which are available on the market. The power is stored in batteries and overload is usually prevented by a diode system. On occasions when insufficient wind is available and the batteries are becoming exhausted, then Diesel Generators can be used as a supplement.

Micro Hydropower

Water power was the mainstay of power generation for hundreds of years well before fossil fuels began to be used at the beginning of the industrial revolution. There are many old mill sites and other suitable locations just waiting for a micro generator to reactivate their power generation potential.

Useful Agencies/Organisations

Help Agencies:

Ecology Building Society, 7 Belton Road, Silsden, Keithley BD20 0EE.

Web: www.ecology.co.uk

Centre for Alternative Technology, Machynlleth, Powys SY20 9AZ. Tel: 01654 705989.

Email: info@cat.org.uk

Solar PV . Tel : 0800 298 3978 or www.solargrants.co.uk

Association for Environment Conscious Building – Web: www.aecb.net

Green Building Store, 11 Huddersfield Road, Meltham, Holmfirth, West Yorkshire HD9 4NJ.

Tel: 01484 854898, Fax: 01484 854899

Email: sales@greenbuildingstore.co.uk Web: www.greenbuildingstore.co.uk

The British Hydropower Association -

Wind Generators:

LVM Limited, Aerogen House, Old Oak Close, Arlsey, Bedfordshire SG15 6XD.

Pellet Heaters:

Rural energy, Manor Farm, Main Street, Owston, Oakham, Leicestershire LE15 8DH. Tel: 01664 454989. Web: www.ruralenergy.co.uk

Rain Harvesting:

Freewater UK Ltd., 340 Brant Road, Waddington, Lincoln, Lincs. LN5 9AJ.

Tel: 0870 241 6964 Email: freewateruk@ntlworld.com

Rain Harvesting Systems Ltd. Cheltenham Road, Bisley, Stroud, Gloucestershire, GL6 7BX.

Tel: 01452 770115.

Hoofmark (UK) Ltd. First Floor, Unit 24, Philedelphia Complex, Philedelphia, Houghton-le-Spring, Tyne & Wear, DH4 4UG. Tel: 0191 584 5566. Web: www.hoofmark.co.uk

Freewater UK Ltd. 340 Brant Road, Waddington, Lincoln, Lincs. LN5 9AJ. Tel: 0870 2416964.

Reed Beds:

Cress Water Limited, 61 Woodstock Road, Worcester WR2 5ND. 01905 422707. Mob:

07771 750687. Email: info@cresswater.co.uk

Sewage Treatment:

WPL Ltd., Units 1 & 2 Aston Road, Waterlooville, Hampshire, PO7 7UX. Tel: 08454 504818.

Burnham Environmental Services Limited, 27 Brightstowe Road, Burnham on Sea, Somerset TA8 7HW. 01278 786104.

Klargester Environmental Ltd. College Road, Aston Clinton, Aylesbury, Bucks. HP22 5EW. Tel: 01296 633033. Web: www.klargester.co.uk

Composting Toilets

Sun-Mar Corp., 5370 South Service Road, Burlington, Ontario Canada, L7L 5L1
Web: www.sun-mar.com Email: chrismuir@sunmar.com

Sancor Industries Ltd: 140 – 30 Milner Avenue, Toronto, Ontario, Canada M1S 3R3. Web: www.envirolet.com Email: info@envirolet.com

Solar Generators:

AES Solar Systems, AES Building, Lea Road, Forres, Moray, Scotland IV36 1AU.
Tel: 01309 676911, Fax: 01309 671076
Web: www.aessolar.co.uk Email: info@aessolar.co.uk

Sonnecraft UK Limited, King Edward Quay, The Hythe, Colchester, Essex CO2 8JB
Tel : 08450 662288.

Smart Energy UK Ltd., Technology House, Haven Road, Colchester, Essex, CO2 8HT

Solar Twin Ltd., FREEPOST NWW7 888A Chester, CH1 2ZU.
Tel: 0845 1300 137 or 01244 403 407 or Web: www.solartwin.com

Sunwarm International, Western Industrial estate, Caerphilly, CF83 1NA.

Worcester Bosch Group, Cotswold Way, Warndon, Worcester WR4 9SW. Tel: 01905 752640.

Ground Store heat pumps

Worcester Bosch Group, Cotswold Way, Warndon, Worcester WR4 9SW. Tel: 01905 752640.

EarthEnergy Limited, Falmouth Business park, Bickland Water Road, Falmouth TR11 4SZ. Tel: 0845 3105406 or Web: www.iceenergy.co.uk

Micro HydroGeneration

Hydro Generation Limited, Winberley Mill, Knapp Lane, Brimscombe, Stroud GL5 2TH.
Tel: 0845 094 1802 or Fax: 0845 094 1803 or Web: www.HydroGeneration.co.uk