Home Heating ... Your Way

It's early March, rain is falling, cold wind is blowing, and you may be wondering if moving to Italy was such a good idea after all. The Tuscan sunshine seems light-years away. Now is the time to begin planning for next winter. This may not be as difficult as you think. Selecting a heating system for your home is like baking a cake – the choice depends on the number of consumers, family budget and personal taste. First you need to consider all the possibilities, then choose what's best for you: chocolate deluxe, holistic carrot cake or simple bundt. Starting with the most elaborate:

If your property is large enough, the Commission for the Belle Arti haven't placed too many restrictions on renovations and you have the money, excellent solutions are photo-voltaic or solar

panels. The idea is to generate enough electricity so that the electric company pays you rather than you paying them. Over a period of years the government will also reimburse you for the investment. It is important to entrust this project to a reputable company that will present your request to the proper authorities. All work must of course be paid for legally, with proper receipts and taxes declared. Here's an example: your house is 200 sqm, you install 16 sqm of panels (on the roof is ideal, especially if pitched south), at a cost of around 6,000 euros to produce 3 kw. If a bank loans you the money for this, you can declare tax deductions each year. After 10 to 20 years, you will have realized a profit – better than some investments.

Many Italians think solar only works on sunny days – not true! The highest concentration of solar usage in Italy, in fact, is in Alto Adige. Solar panels do require space, so a large roof or garden is needed. For an equal production of energy, the initial investment is comparable to that of photo-voltaic but a partial use of solar (for hot water for example) will cost less. Solar might be preferable to photo-voltaic for those who want to reduce electrical energy use in the home. There are also various options for *passive solar* – sunrooms, southern exposure, greenhouse, skylights. Absorb the free heat and don't lose it through "seams" around doors and windows.

Let's skip over wind power, though this is an important source of energy in southern California, Pontedera (near Pisa), and many other places, primarily on an industrial level. It's unlikely that eolic (wind) energy is appropriate for most private homes in Italy – the same is true for water power, though if you own a mill you might want to consider this. Again, the electric company will reimburse you if you generate and return energy to them.

Traditionally most Italian homes are heated with gas – a fairly inexpensive solution if you are hooked up to city mains (methane) – but expensive if you have to pay for a tank of GPL (liquid petroleum). The one-time cost of connecting a new home to city gas is approximately 1500 euros. Installing a gas-heated hot water tank and a dozen radiators (for 6 to 10 rooms) will cost around 12,000 euros, after which your annual gas bill (for a family of 3, average temperature 20°C) will be around 2000 euros using city gas, or double this, using GPL. Some people prefer to have separate water heaters for bathrooms and kitchen; while the initial cost is higher, in this manner consumption will be lower.

If you must use GPL because your house is in an isolated location, your tank will be safely installed below ground in an easily-accessible location that is hopefully well-hidden, so as not to distract from the natural environment. Usually these tanks are filled once or twice a year. Attention – don't run out in mid-winter or mid-August; your supplier may not be able to reach you immediately!

While many Italians use gas tanks (*bombole*) in the home (for example, for gas stoves), this is not a very safe option, especially for foreigners who have not grown up with this system. Every year the newspapers report home gas explosions. This rarely happens using city gas, which is quite safe (especially if you turn off the gas valve when it is not needed). As with all heating systems, proper maintenance is an absolute necessity.

In all the above situations, radiators can bring heat to individual rooms. An alternative is under-floor piped heating. If your floors are being newly installed this is quite feasible (estimate 20,000 euros for 150 sqm); otherwise the system will be more expensive since existing floors have to be demolished and re-laid. Opinions are divided about whether under-floor heating is a healthy solution; unquestionably the heat arrives in a uniform manner and is extremely pleasant for bare feet, whether the floor be of terracotta or of wood.

Another traditional rural solution is the so-called *cucina economica*. This stove is fuelled by firewood and also heats

the room. It usually has a container for water, which is kept warm for cooking and sometimes even for the hot-water bottle. The first stove of this kind was created in 1735 by the French architect François Cuvilliés, and was called economic because it was multi-functional, heating the room, boiling water, and cooking all at the same time. These stoves are low in price and found in many country homes.

Returning to other environmentally-friendly solutions, one receiving renewed attention and government support lately is "biomass heating" – for example, pellet stoves. These stoves, with prices beginning under 1500 euros, can be installed within the home or in an accessory structure. A biomass heater in an annex will heat a water tank, then the water can be piped directly into home radiators. The main advantage is that pellets (made from pressed wood shavings) and other fuels are inexpensive and easy to buy and store. The main disadvantage is that the stoves need to be fed regularly.

Stube – stoves made from majolica (glazed, decorated terracotta) – are not only excellent sources of heat but also decorative. In Austria and northern Italy, gracious *stube* are the centrepieces of living areas. They are safe, offering built-in platforms on which to enjoy their warmth up close, providing a steady heat with little effort. More than a century ago, Mark Twain lamented, *America could adopt this stove, but does America do it? The American wood stove, of whatsoever breed, it is a terror. There can be no tranquillity of mind where it is. It requires more attention than a baby. It has to be fed every little while, it has to be watched all the time; and for all reward you are roasted half your*

time and frozen the other half. It warms no part of the room but its own part; it breeds headaches and suffocation, and makes one's skin feel dry and feverish; and when your wood bill comes in you think you have been supporting a volcano.

Today there are many kinds of wood-stoves, to satisfy all tastes. Prices begin at about 450 euros for a charming, shapely cast-iron (*ghisa*) wood-stove with brass fixtures that will heat a room of 15 sqm. Firewood in the Lucca region costs from 12 to 18 euros per *quintale* (1 quintale = 100 kg); 500 euros should get a fireplace or stove through the winter – although this alone is not enough to warm an entire home. Buying firewood in the summer gives the wood time to "cure" – to dry out and thus burn more efficiently than wood purchased in winter.

Fireplaces are less efficient than wood-stoves but gain efficiency when pipes are used to blow heat into the room, or when they are enclosed in glass. Such *termo-camini* or convectors can be used to supply hot air to radiators. A commonplace expression is that fireplaces heat twice – first when you cut the wood, second when you burn it. And what can be more traditional and beautiful than the Tuscan *focolare*? Italian folklorist Alessandro Falassi,

inspired by this fireplace – which doubled as a cosy little "room" in which to peel vegetables, sew or tell stories – wrote a book about the Italian story-telling tradition entitled ***Folklore by the Fireside.*** Rarely do modern homes provide the space needed for a true *focolare* – which is a shame, since this warm lifestyle may be lost along with the physical structure.

For a home not already connected to a gas source, electric heating is worth considering. While small portable heaters consume excessive amounts of electricity, "splits" (brands include Ferroli, Carrier, Daikin) – air conditioning units like those used in hotels and restaurants that heat, cool and de-humidify – meet efficiency criteria – especially because there is no gas bill. Splits are interior units (placed high on the wall) linked to external units, with up to three interior units connected to one external unit. It's important to have a wall or terrace hidden from view by trees or other structures so that the external unit doesn't detract from the beauty of the home. An advantage of this system is that each room has independent heating and independently-programmable controls – a good solution for people who travel or who want heat that comes on quickly. In five minutes a cold room can start to warm. In summer, the same units provide air conditioning. On rainy days, de-humidification may even help to dry laundry. A home electricity contract can be increased to 4.5 kw (or more) of power from the usual 3.0 kw for a one-time fee of about 100 euros, after which monthly rates will be little more than a 3 kw contract.

This higher contract is a must for a "modern" family that uses computers, hairdryers, dishwasher, clothes dryer, electric heaters, food processors, etc.

The secret to a warm home is to mix and match all the possibilities, creating a personalized solution that meets one's tastes and needs. Once the home is warmed according to your personal criteria, you can invite friends, watch a video, enjoy a good book – and let the rain come beating down.

– by Norma Jean Bishop

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