

#### Conclusion...

There is no doubt about it... Trying to do the best for the environment and your wallet can involve a number of trade offs. For example: Living in higher density apartments can save energy and contributes to higher urban density but often it is difficult to influence all of the green design decisions when buying or renting an already constructed apartment.

Single Family Homes can definitely be constructed to minimize energy costs and negative impacts to the planet without sacrificing style and comfort but might contribute to urban sprawl and require farther commutes to the city center. The important point is for those constructing, purchasing or renting homes or apartments to know what to look for, evaluate your options based on informed opinions, and to let the market know that you want greener options for the safety of the planet and your wallet!

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The Romania Green Building Council is a non-profit, non-political association encouraging the market, educational, and legislative conditions necessary to promot high performance construction that is both sustainable and profitable. The RoGBC is accredited as an "Emerging Council" with the World Green Building Council.

The Council disseminates information, provides training an supports the development of appropriate regulatory conditions that facilitate the rapid growth of the green construction sector in Romania.



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SAVE MONEY by building GREEN



# Get professional help!

Architects and Construction Engineers can save you a significant amount of money by helping you to build a home that is more energy efficient and uses an appropriate amount of space based on your needs. Architects who understand green building principles know how to properly orient your house to maximize the sun's heat in winter and to shade your house in the summer sun. They will also help you maximize the use of daylight to brighten your home in the daytime using well-designed windows, skylights, and other options. The investment is these professionals services will pay for itself many times over during the long life of your better designed home.

# Get free money to build green!

Unlike that jacuzzi bath or swimming pool, extra money that you borrow for initial investments in energy efficiency will be more than paid for by reductions in your monthly energy bills. Simply calculate the additional monthly payment and compare it to the 30 to 50% you would save on heating and cooling and the smart financial decision is obvious.

#### Insulate/Insulate/Insulate

Insulation is one of the cheapest ways to save money during the life of your home. Adding better and more insulation will dramatically reduce your energy bills by keeping the heat in during the winter and the cool in during the summer. Innovations in the material and delivery of insulation provides the possibility to delivery of insulation in your home with uninimal costs. Properly applied insulation will also reduce outside noise. Look for green options such as mineral or glass wool, soy-based polyurethane, cellulose, and formaldehyde free soft foam insulation.

# Natural Ventilation / Healthy Indoor Air Quality

You and your family spend a large amount of time awake and asleep in your home. It is very important that the air in your house to be changed frequently to avoid "sick building syndrome". This is when the chemicals present in your furniture, building materials, cleaning solutions, and other areas leak into the air and are breathed in by occupants. Children are especially vulnerable to excess chemical exposure. Using paint, adhesives, and other applications that have low or no "Volatile Organic Compounds" (VOC) will create a healthier environment. There are also ventilation systems that will exchange the bad air for the good. The best systems can use the outgoing air to pre-heat or pre-cool the incoming air to maximize energy efficiency.

# Windows and Daylighting

Thermopan windows are a great start but consider investing in three paned windows and other high performance windows. Skylights are a great option for improving the appearance and reducing lighting needs but make sure they provide good insulation so your energy savings do leave through your skylight. Tubes that can bring sunlight through your attic and other unused spaces into your home are easy to install and produce free lighting throughout the day.

### Lighting and Power Management Systems

Most people have now heard about Compact Florescent Lightbulbs (CFLs) that cost more but last ten times as long a regular light bulb. Other new innovations to consider are Light Emitting Diodes (LEDs). As we said with getting professional assistance... a lighting designer will help you maximize the visual effect of good lighting while minimizing the energy usage to save you money over time. There are also systems available that will monitor movement in a room or area and turn on or off a light as appropriate. These systems are great for minimizing the waste from leaving lights on and can enhance security for areas you want to illuminate when someone is present.

#### Sun Shading

Direct sun shine is a major contributor to warming a building. This is, of course, great in winter but to be avoided in summer. Manual or Automated shading on your house or apartment will reduce the need for air conditioning and reduce glare inside the rooms. Some of the more advanced systems monitor the sunlight in a room and the wind speed outside to automatically adjust the shades throughout the day.

#### Solar H20/Heat Pump

Solar water heating is a great way to reduce your energy bills from a natural source of energy. Advancements in solar technology allow many systems to provide water heating even in the middle of winter. A heat pump works by taking advantage of the heat that is just deep enough below the surface to maintain a constant temperature. While the water might not be hot enough to use, it will have been "pre-warmed" which reduces the need for additional heating by traditional methods.

#### Some other ideas:

Radiant Heating – It is important to buy from reliable vendors and to check references of their prior work

Energy Saving Appliances and Equipment – Check the label on the appliances you buy to ensure they receive the highest grades for energy efficient. The higher energy prices rise, the sooner your investment will pay for itself.

Water Conservation – Buying "low flow" showers, faucets, and toilets will reduce the water usage for your home.
Rainwater harvesting systems can provide you with water for your garden while reducing the burden on municipal sewer systems during rain storms which contribute to chemical runoff.

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