

## Solutions for a Sustainable Future

### Worlds “Greenest Buildings”

Throughout the world, the importance of creating a sustainable future is becoming more recognized. With this recognition, the need for “green buildings” is important to create an environmentally sustainable. Many architects and builders are, therefore, taking the steps necessary in making their building more energy efficient, and increasing utilization of renewable energy sources to make them more sustainable. Here are a few projects around the world going green. They are in no particular order.



**1) Holy Wisdom Monastery.** Madison, Wisconsin’s Holy Wisdom Monastery has made multiple “Greenest Building” lists. It has received the highest rating awarded by the U.S. Green Building (63 out of 69 potential points). It offers preferred parking for fuel-efficient vehicles, accessible green (living) roof, no permanent irrigation system, photovoltaic cells responsible for the generation of 13 percent of all energy needs, 99 percent of all waste from construction and demolition diverted from landfills, building materials regionally produced, bamboo floors, high sustainable windows, and a monitoring system for outdoor air delivery.



**2) Manitoba Hydro Place.** The Manitoba Hydro Place in Winnipeg, Manitoba, Canada was listed as the fourth most environmentally friendly design in Canada in 2009. More than 40 percent of the total light is provided by the sun. A geothermal system provides all the heating and cooling needs for the building. Displacement ventilation provides offices with 100 percent fresh air. Furthermore, the building was constructed to harness passive solar and wind energies for cooling, heating, and ventilation during seasonal temperatures.



**3) India Tower.** The India Tower in Mumbai has a design that looks as though a number of boxes were stacked one on top of the other. It is 74 stories and each block incorporates a different use and utilizes solar shading, daylighting, natural ventilation, rainwater harvesting, and a green interior. It is one of the greenest buildings in India and has achieved United States Green Building Council's LEED Gold rating.



**4) Crystal Island.** Crystal Island in Moscow, Russia will be more 1,500 feet tall with more than 25 million square feet of floor space. It is a self-contained city with eco-friendly management and energy conservation techniques.



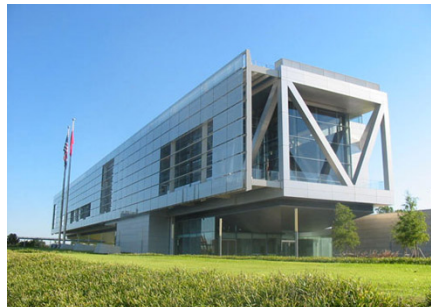
**5) The Chicago Center for Green Technology.** The Chicago Center for Green Technology is known for its large array of different sustainable features that have assisted the Illinois building in achieving Platinum LEED status. The building uses an estimated 40 percent less total energy that buildings of similar structure. Other sustainable features include 28 vertical wells aiding in regulation of temperature, double insulated glass, a smart lighting system, recycled glass tiles, scrap cork flooring, and the utilization of over 40 percent of the building made with recycled materials.



**6) Masdar.** No green project has been as ambitious as Masdar. The project will encompass more than 64 million square feet. The walled city offers no waste and zero carbon emissions. There will be public transportation options every 200 meters and personalized rapid transit (which is good because no cars are allowed into Masdar).



**7) BMW Welt.** BMW Welt in Munich, Germany is a great example of engineering ingenuity. A large photovoltaic cell array on the roof of more than 3,500 solar panels provides a majority of all power. There are also a number of steel panels along the roof that assist with building heating needs through solar gain.



**8 ) Clinton Presidential Library.** The Clinton Presidential Library and Museum in Little Rock, Arkansas, received LEED Platinum rating in November 2007. Since then, the library has implemented a number of new green features, such as a rooftop garden which will not only reduce rainwater runoff, but also regulate temperatures and absorb carbon emissions, an elevation in recycling capabilities, green cleaning capabilities, a reduction in waste through the utilization of local sourcing, and a program for carbon offsetting for all sources of non-renewable energy. Future plans include on-site wind turbines and photovoltaic cells.



**9) Green Lighthouse.** Copenhagen, Denmark’s Green Lighthouse is the first public carbon neutral building. It has proved to other countries that carbon neutral buildings can be achieved. In fact, more than 70 percent of all energy reductions were created by the structure of the building itself and not technologies. A number of green designs were implemented to provide a healthy indoor environment, including natural ventilation and day-lighting via skylights and windows, LED lights powered by solar panels, solar shades on windows, geothermal heat pump, and a district heating system.



**10) Bank of America Tower.** The Bank of America Tower in New York is the only skyscraper to be awarded Platinum LEED status by the United States Green Building Council. Reaching 1,200 feet, this 54 story tower boasts a co-generation plant on the seventh floor which captures natural heat, reuses rainwater and waste, and has most of its raw materials for construction coming from local source no more than 500 miles away from the tower’s location.

I am Jim Steigner (Mr. Comfort) and I just wanted you to know. As always please feel free to contact me at [www.mrcomforthvac.com](http://www.mrcomforthvac.com), under the “Ask Mr. Comfort” Section.