

## Guest Column

### “Grandpa Had A Windmill”

By Ronnie Godfrey, CGB, president, R Godfrey Homes

We just got back from Fredericksburg, Texas where we attended the 8<sup>th</sup> Annual “Renewable Energy Roundup.” We build severely energy efficient homes and wanted to keep abreast of the latest developments relative to alternative energy and green building. The event covered so much more. Topics included: Solar Electricity, Green Building, Recycling, Native Landscaping, Wind Generated Power, Organic Gardening, Rainwater Harvesting, Solar Water Heating, and Cleaner Transportation.

The Solar Electric industry is growing and the cost of photovoltaic cells continues to come down with the hope that within a few more years it should be in reach of most of us. Currently it is not. There are several factors to consider to determine if solar will work for you. You need an unobstructed view facing south for the solar panels to draw the most power from the sun. Additionally you need room to mount the panels on the roof or a space where you can set up braces to hold them on the ground.

It seemed that the equipment to generate one kilowatt (KW) of electricity would cost you \$6-10. Once you determine your KW needs and then calculate the cost, the payback is just not there. As mentioned above, as more folks buy this equipment it should drive down costs. Twenty thousand dollars was a number bantered about for a reasonably sized home.

Wind generated electricity, of course requires that you be in a place with a reliable amount of wind. With the exception of those of you who live on Chalk Mountain, most of us are out of luck on that one.

One of the bright spots of the products on display was those that had to do with rainwater harvesting (RH). I recently drilled a well that cost \$15,000, plus the cost of the well house, storage tank, and pressure pump. An RH system would cost no more than that and would require less power to operate. Moreover the power to operate it could be generated using solar panels. The system could be used to provide drinking quality water for a household.

Again some calculations would be in order. You would need to look at your current usage, the amount of collection area (typically your roof area), and the average yearly rainfall. The system can filter the water and manage bacteria etc. to make the water safe. The storage tank would take up a lot of room making this a better alternative for homes in the country or on good sized lots. This looks promising for rural settings.

Another set of products that I enjoyed seeing was the electric powered vehicles. There were cars, trucks, scooters, and bikes of all description that worked with battery power. The batteries were wet cell (old technology), jell cell, and lithium ion (latest technology). Most were cute and cheap to operate. Of course none had air-conditioning, a sacrifice that had to be made to weight and power consumption.

Seminars were held throughout the day in four different locations causing you to have to choose which to attend and which to miss. We attended those that spoke to green building and energy efficiency. We attended: "Building A Five Star Green Home," "Design And Build Your Zero Energy Home," "Design Smart – Design Small," "Correct A/C Design For Super Efficient Homes," and others.

At this event much was said about global warming and several seminal films were viewed at theaters in Fredericksburg. The science is pretty convincing that global warming is influenced to a considerable degree by the choices we make about our homes, transportation and lifestyle. There were talks supporting the need to change our ways. We need to build more energy efficient homes, drive more fuel efficient cars, or walk, or ride bikes or take public transportation when possible, and recycle like there is no tomorrow.

Check out their web site at [www.TheRoundup.org](http://www.TheRoundup.org) for next year's event.

Proverbs 1:5

<sup>5</sup>A wise man will hear and increase in learning,  
and a man of understanding will acquire wise counsel

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