"Current" Events

Lewis Electric **Update**

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MERRY CHRISTMAS

Coming Attractions:

The Future of Electricity ?

This article is being written to inform you about current projections for our nations future electrical supplies, ways in which we may use electricity in the future, and likely future inventions.

Well, we know how electricity and power were produced in the past, and we know how it's presently being produced, but how can we predict our future energy consumption ? Many estimates are based on current rates of growth of a particular source, expected cost of the electrical source, and estimates for the use of competing energy sources. The biggest battle between energy supplies has been, and likely will be, the competition between fossil fuel supplies, and our renewable energy sources. While fossil fuels offer the option of powerful and cheap energy, renewable sources will help provide a cleaner atmosphere with less pollution and will help to free us from dependence on Arabian imports.

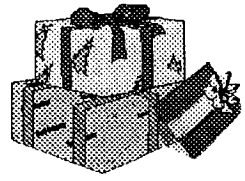
This trend seems to indicate a greater use of renewable energy in the future. Estimates for our national use of WIND energy have risen to an expected 10% use in 2020. SOLAR energy has risen to 7% by the year 2000, and HYDROELECTRICITY has risen to an expected 21%. As we continue to run lower and lower on fossil fuel supplies, we will need to find alternate sources of electricity to supply our massive needs. That source seems to be not just one, but many different kinds of renewable energy.

How will we be able to use electricity in the future ? Three major developments which may change the way in which we use future electricity seem to be in the areas of lasers, fiber optics, and superconductors.

The first development is in the area of lasers. Lasers work by organizing light waves into one continuous stream of light . This can be done with any kind of visible light on the electromagnetic spectrum, allowing laser light to become exceptionally pure in color. Lasers can be so directional that they remain in a narrow beam over a long distance, and they can be so intense that the area of focus becomes brighter than the sun. They can provide heat from that which slightly warms the skin, to heat greater than the temperature of the sun's atomic furnace. Only in the twentieth century has our knowledge of light waves and transmission of light improved so greatly that we can create such amazing results. As our knowledge of light and it's physical properties continue to increase, our laser technology will undoubtedly increase rapidly.

The second development likely to make huge

Inside



information for this article was gathered from: Energy the New Look, McGraw Hill 1981,N. Y. Understanding Fiber Optics, H W Sams 1983. Fiber Optics Mead Publishing,1986. Lasers. The Miracle Light William Morrow & Co. 1979

difference in the future is fiber optics. Fiber optics are made up of two kinds of glass. In the center is a regular optical fiber. This optical fiber is then coated with a kind of glass that has reflective properties. Light flowing down the center of a fiber optic wire will reflect back to the other side of the wire if it gets slightly off center. This allows fiber optic wires to be used over much greater distances. Light can flash on and off in a fiber optic wire over a million times a second ! So transmitting messages through fiberoptics is much more accurate. This is a must for today's hi-tech computers and communications devices. Many other plans for fiber optics are underway , such as being used in holography and a computer designed to work at speeds of over ten-thousand times faster than they do today. Obviously, fiber optics will be making a large difference to the way we use electricity in the future.

And don't forget he's checking it Twice !?!

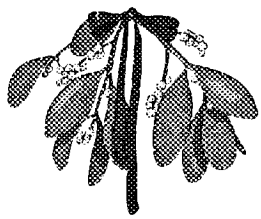
The final development is the use of superconductors. A superconductor would be able totransmit electricity over great distances without any electrical loss. Current electrical wires lose power because electrons flowing through them occasionally crash into the nucleus of other atoms in the wire. This creates friction in the wire, which slowly acts to lower the amount of power flowing through it. The atoms in a superconductor line up perfectly when they get cold enough. This allows the electrons to flow through the wire without any friction. This means the amount of power stays the same no matter how far it travels. The only draw back is that it is to expensive to chill the superconductors at present. However, new technologies and new methods of cooling the superconductors are already getting better. Many scientist believe that the right combination is right around the corner and that we will be using superconductors very shortly.

Some possible inventions that we may be seeing soon ? Video phones, super computers, voice activated appliances. Who knows what new inventions will be coming in the future, they haven't even been thought of yet. You can't tell what the future will bring until it's here. *SLM*

Another Amazing Electronic Fact:

Although we modern persons tend to take our electric lights, radios, mixers, etc. for granted, Hundreds of years ago people did not have any of these things, which is just as well because there was no place to plug them in.

Then along came the first electrical pioneer, Mr. Benjamin Franklin, who flew a kite in a lighting storm and received a serious electrical shock. This damaged Franklin's brain so severely that he started speaking in incomprehensible maxims, such as: " A penny saved is a penny earned." Eventually he had to be given a job running the post office.



From All of us at Lewis Electric we wish you all a very Merry Christmas and a Very Happy New Year !!!