

POWER GRID CYBER ATTACK

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Currently there is a lot of propaganda in the media related to cyber attacks that will, according to the propaganda, take out the power grid. As matters would have it, I worked as a Technician on a Hydro-Electric Power Project for sixteen years. As such, I have some knowledge of how a power grid functions.

In order for an Internet Cyber Attack to cause any problems with the *power grid*, the *grid control systems* would have to be connected to the internet. And they **are not!** Communications of remotely controlled power system components takes place on proprietary communications hardware.

Power companies have both voice and control communications on Powerline Carriers, which are NOT connected to the internet. This is specialized equipment that communicate on the high-voltage power lines on towers. Typical voltages would be 60,000 volts, 120,000 volts, 240,000 volts and 500,000 volts.

Another primary means of Power Company communications is microwave. Microwave is also a directed wave, at a specific frequency, between two microwave transmitters/receivers. While one microwave is capable of hundreds of channels of communications, any microwave channel being used in control of power facilities will not be connected to the internet.

And a final means of power systems control communication is via a dedicated line. In this case, a phone line (a pair of wires) that runs from location A to location B is rented from the telephone company. It is not connected to the telephone system, other than it uses a pair of wires, and the only two connections are owned by the power company, thus there is no way to intrude on this communications line. Since the communications equipment connected to this line belongs to the power company, there is no dial tone, and no DSL or other type of communication equipment connected for internet service.

Power Systems Engineers are too smart to put power system controls on the Internet, which is HACKED all the time. Simply put, the power system is too

important to compromise by connecting it's controls to the internet.

Therefore, all this hype about a cyber attack bringing down the power grid is Leadership propaganda so that when THEY bring down the power grid the American people can be convinced it was North Korea, or the Russians, or whoever they want to point the finger at this week.

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