NOTE added October 24, 2011: The calculations used in this letter were based on the assumption that the smart meter transmitters have a power output of one watt. New information is that the Itron meters being used by BC Hydro actually only transmit 100 milliwatts, which means they are about ten times safer than is implied in this letter. I've added the new revised figures in {red}.

NOTE added October 13, 2011: The letter mentions that car engine spark plugs radiate at RF, but although this is theoretically true, measurements made since show that levels are so low that this source of radiation should really be discounted.

The dangers of opening the door

Letter to the Editor
Gabriola Sounder, Monday, July 11, 2011
I wonder how many people realize that by using their remote keyless car door system they may be exposing themselves to a health hazard.

My understanding is that these keyless systems work in the 300-400 MHz range (as do garage door openers) and the permitted field strength from such devices is in the range 6.8 mV/m to 9.6 mV/m, depending on frequency, at a distance of 3 metres. Let's suppose one is using a system generating 6 mV/m to be on the safe side. Then, the RF transmitter power required is of the order of 10 microwatts, and such a transmitter, say, ten millimetres from your thumb, produces a field of about 1.8 V/m.

This is the same as BC Hydro's smart meters will produce at a distance of 3 metres {1 m, 3 feet}, assuming a one-watt {100 milliwatt} transmitter at 900 MHz (which isn't, by the way, a microwave frequency). In other words, using your remote keyless car door system will be just as dangerous, as far as your thumb is concerned, as standing most of the day within 3 metres {1 metre}of a smart meter. Smart meters only transmit for a few seconds once every 4-6 hours, so you'll have to hang around to catch them in action.

And if you are not worried about your key, maybe you should worry about your car's spark plugs. They emit electromagnetic radiation of the same order too {see Oct. 13 note above}. Oh! And let's not forget the sun. Each individual photon of sunlight packs a punch about six hundred million times more powerful than a photon of RF radiation at 900 MHz. Even on an overcast day with say, eight hours of daylight, you'll be receiving over five million times more electromagnetic energy than the extra energy you would receive by standing for 24 hours, 3 metres {1 metre} away from a smart meter.

I'll leave you to draw the conclusion.

Regards…

BACKGROUND

Electromagnetic radiation and health
Notes on smart meters being deployed on Gabriola Island
Electromagnetic radiation and electric and magnetic fields on Gabriola—a survey