



January 15, 2015

City of Kelowna
Water Street
Kelowna, BC

Att: Mayor & Council

Re: FortisBC's Notice for Smart Meters, Dangerous Installations and Real Liability

Dear Mayor and Council:

Due to the wide scope of people and professionals reading this, it is important that I clarify my qualified opinion here isn't a debate. We are the government and industry qualified electrical professionals designing, constructing, troubleshooting and maintaining FortisBC or other utility's power. Electrical Engineers are not qualified to wear tools, do construction or maintenance, that is the electrician's job. To achieve our Interprovincial(Red Seal), Journeyman Electricians have to meet provincial/national government and industry standards. There are many different types types of electrical work including construction or maintenance of explosion proof, oil, gas, chemical, refinery, mills, mines, energy, manufacturing, etc. All of it is dangerous and working on live electrical is extremely dangerous work. A spark in the wrong place at the wrong time could be catastrophic.

Meters with 2 antennas and not tested under full load conditions have their own problems. Governments and utilities are looking for the right meter to avoid fires or failure when it is the INSTALLATION that is extremely dangerous. There are ZERO circumstances for unqualified people to be touching that meter base or the meter. There is real costly liability.

Some companies have gotten so ridiculous they want to put heat sensors in the meter as some sort of solution for fires?? The meter base owned by the customer has 8 connections that may have **NEVER been maintained** for decades. FortisBC like all industry maintains their electrical systems regularly. Those meter bases have fragile electrical components never maintained. The connections require maintenance or changing of the meter base. They are dangerous before someone starts wrestling with the meter as you will see here.

FortisBC has to answer for their arrogance and ignorance after they were warned about liability at the BCUC Oral Hearings in Kelowna. As a result FortisBC has created a real liability to the City of Kelowna, insurers, First Responders, residents, economy as well as the rest of FortisBC's coverage area. There is no margin of error, the liability grows daily and it is my job to report to Kelowna in my government recognized capacity. I like others am liable if I didn't do my job.

Under no circumstances can this be dismissed by FortisBC, the City of Kelowna, any other level of government or associated professionals. The costs are unrealized. The Auditor General of Ontario as one example is reporting their smart meter program as a 2 billion dollar waste when the reality is the damage is in the trillions. Ontario has used contractors(not qualified) to mass install 4.8 million meters and have a real liability for 4.8 million buildings. That is separate of the occupant's lawsuits for the radiation of themselves and their property. FortisBC confirmed under cross examination from Jerry Flynn their meters on each house will have a range of 2-3 kms. My neighbour is 50 yards away, am I killing them or them me?

FortisBC Engineer Mark Warren confirmed under cross examination at the BCUC Oral Hearings in Kelowna that FortisBC did not inform or consult the City of Kelowna nor did they intend to. FortisBC's reckless representation and dismissal of the City of Kelowna being the authority having jurisdiction on BC Building Code created a real problem affecting building code compliance. That code compliance changes construction, real estate sales and economy. Building Code compliance is a condition of sale and blanket electromagnetic radiation affects BC Building Code 4.1.3.6.(Vibration) across the country. Wireless smart meters can not be used across Canada just based on the code rule. **No compliance = No Sale/No Occupancy.**

The picture below is an example of the science FortisBC is using to substantiate people are not adversely affected by the RF EMFs. This is the same exact science FortisBC is using to bypass the City of Kelowna at all levels including building codes and bylaws so they can use blanket radiation to read meters. That puts all of us in the electrical circuit.

The Specific Absorption Rate Test is a dosage of electromagnetic radiation and has no applicability to building construction today. If smart meters are deployed as FortisBC expects, the City of Kelowna will have to revise building codes first. No design would pass with blanket radiation. As you can see by the picture, it has no applicability to health either. FortisBC "experts" effectively used the plastic head to deflect any biological claims. Patients and doctors report ringing in the ears with RF EMF exposure. FortisBC's test doesn't have ears.



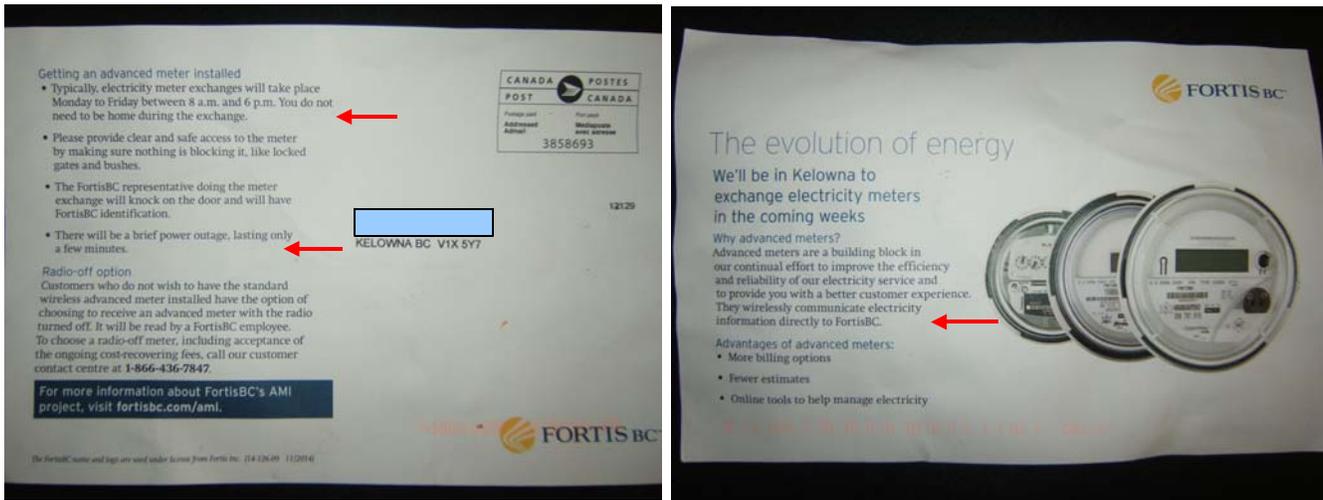
The SAR test is just an admission of this radiation being absorbed. Furthering that, the SAR only incorporated the end use device on the wireless circuit. The antennas, WiFi Routers and smart grid required for the wireless communication were not technically incorporated into the SAR. That requires trillions of calculations.

The SAR test has no health, nerves, biology and is used based on the heating of water like a microwave. Quite frankly it is embarrassing to see this ridiculous representation of science technically overwhelm the Government, FortisBC and the BCUC.

As it pertains to smart meter installation and meter bases, our job over 35 years included isolating electrical, mechanical, refractory or other problems for industries as well as insurers. A wide scope of industries, governments and insurers **saved 100s of billions** plus injuries or lives as a result. Savings across the board and getting the job done. If **any** industry including the energy sector would have ignored the reporting, the liability could be significant. As codes and standards we report to and through the authority having jurisdiction. We do not blindside them and can not minimize or exploit a problem.

FortisBC did not qualify the safety of the smart meter program for the BCUC in Kelowna Oral Hearings. In my direct cross examination of FortisBC "experts", Mark Warren admitted to the blanket radiation of 17,000 sq. kms to communicate with meters. FortisBC "expert" Dr. William Bailey admitted critical electrical information was missing in FortisBC Risk Assessment Report. Dr. Schkolnikov stated under cross examination by me that it would be his duty as an electrical engineer to revise his reporting if critical information was missing. **Where is the Revision?** FortisBC "expert" Dr. William Bailey of Exponent Inc admitted critical bio-electrical information was not in their risk assessment. Mark Warren was dismissive of the city and called electricity a hypothesis trying to protect their flawed risk assessment by Exponent Inc.

Use the zoom features and magnify FortisBC's notice for installation of smart meters. The notice itself includes reckless, dangerous and inaccurate information about installation or swapping electrical meters.



Above are FortisBC Notices. There are 3 red arrows placed on the notices to draw attention to FortisBC not understanding the scope of the work or their liability.

The red arrow top left refers to their notice saying you don't have to be home? The arrow bottom left refers to power outage for a few minutes? That should be setting off alarm bells with that language. I would NOT allow any apprentices or journeymen to pull or touch that meter as described. Electricians do not casually swap meters under different electrical load on equipment 50 years old unless they got their ticket working in very limited capacities. If I was asked, I would say NO because of the danger and liability. Once again NO means NO or electrocution, fires, explosions etc.

The meter base is the owners and an electrician with permit should be there representing the best interests of the owner. **FortisBC electricians would show up to pull their meter AFTER the power was turned off for the entire building. Warnings would be given residents so they could save work, shut off appliances, or address any medical devices.**

FortisBC would have been told by electricians it was safe to pull the meter. They would pull their meter before we opened and inspected the meter base. Those connections in the meter base have NEVER been maintained electrically for the years or decades their meter was on the building. Replacing the meter base itself is a reality to maintain the REQUIRED integrity of the electrical systems. As soon as the work is completed, FortisBC puts on their meter and we turn on the electrical panel inside the building before we power up the circuits.

Electrical equipment including connections are cleaned and tightened regularly. Thermal images you will see here are FortisBC's area including one of their recently acquired utility. Inspections were done yearly because connections are the weakest point in an electrical circuit. That protocol of regular yearly inspections can not be ignored with meter base connections that have not been maintained in decades.

FortisBC needs to cease and desist immediately. Their liability increases daily. FortisBC contractors swapping meters under different types of electrical load is dangerous to the installer as well as the home owner. Arcs, power surges, electrical/electronics damage. Further pitting or compromising connections can mean fires can happen at any time. Using more electrical, Air Conditioning, high wattage can create a fire later.

Every meter FortisBC has installed requires re-inspection of the buildings, building systems and meter base at FortisBC's expense. That is separate of the damage if the 2 radio frequency antennas were turned on. FortisBC and a utility has the authority to change a measurement device or work on equipment. They do not have the authority or jurisdiction to use 2 types of RF EMFs to irradiate their areas and homes. It puts people and everything inside the electrical circuit.

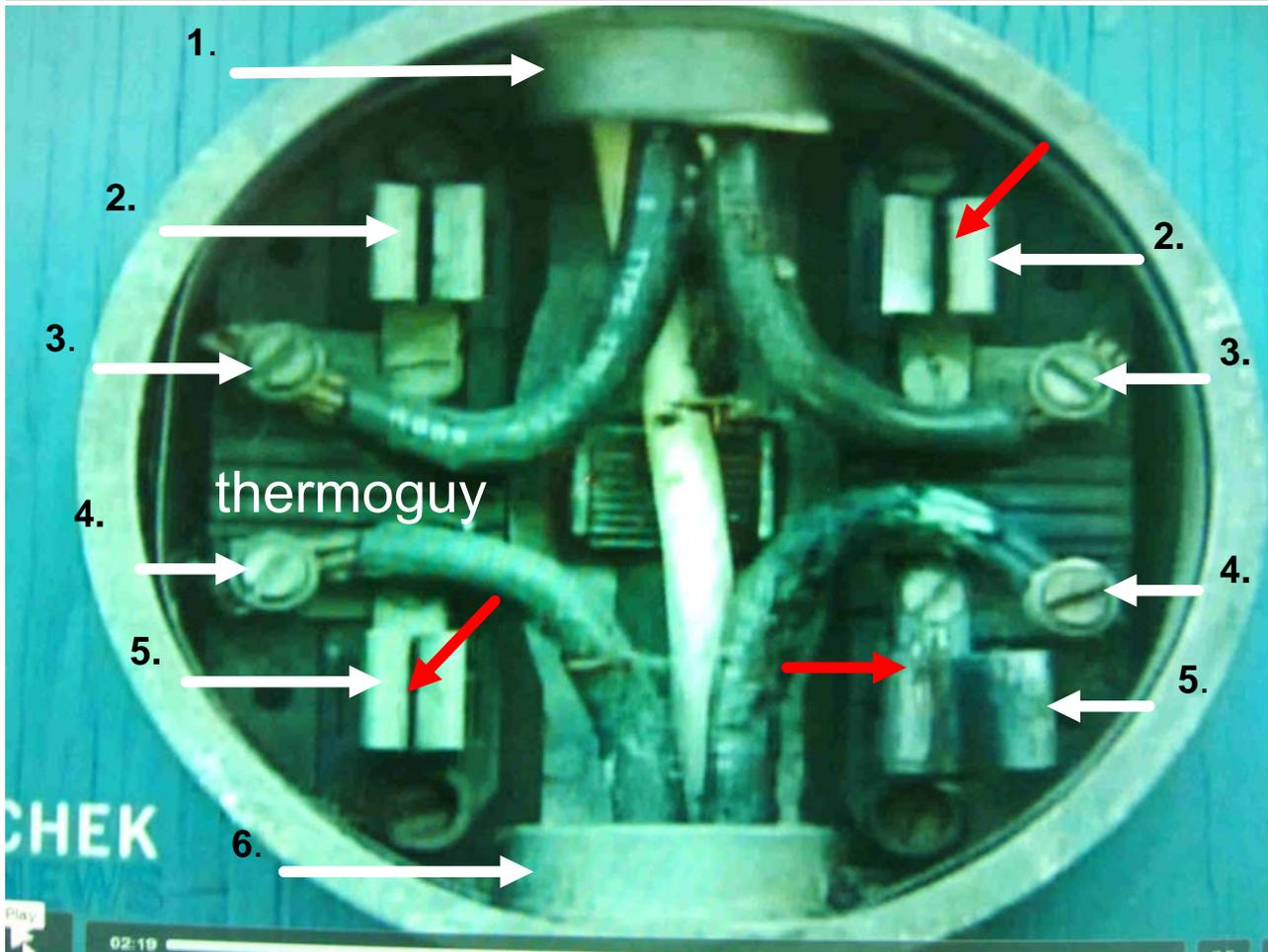
See attached pages at what can be festering inside those meter bases and bigger concerns in summer with AC use. AC uses big electrical loads and are compromised meter bases.

Sincerely,

Curtis Bennett
Chief Science Officer
Interprovincial Journeyman Electrician(Red Seal)
Building Construction Engineering Technologist
Adjunct Professor for Accredited Medical Education
Thermal Radiation Consultant for 35 Years/
www.thermoguy.com
curtis@thermoguy.com
Ph: 604-239-2694



Meter Base & Fire From Chek News



1. Pipe & Wires in Pipe Going Up Mast to Distribution Splice
2. Meter Base Stab Connections, Line Side(top of Meter)
3. Wired Connections Powering Line Side Stab Connections
4. Wired Connections Powering Load Side Stab Connections
5. Meter Base Stab Connections, Load Side(bottom of meter)
6. Pipe & Wires Going to Customer's Electrical Panel

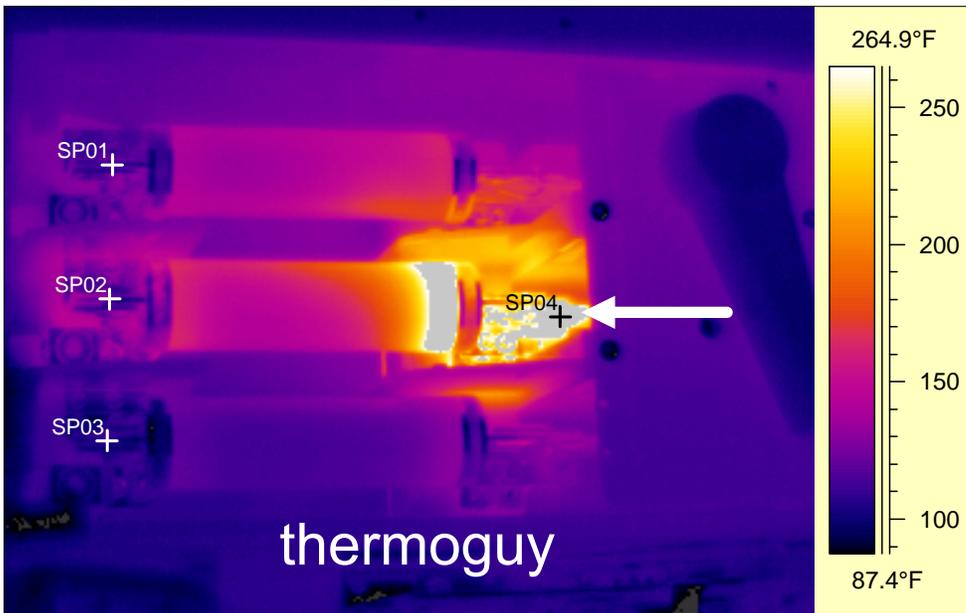
Meter base has 8 connections for consideration.

Red Arrows showing differences in gaps on stabs. See the bottom right stab connection and the very wide gap? That is caused by the inexperienced installer damaging the stab when forcing the meter and compromised the connection. The loose connection will arc and you can see is the cause and source of this fire.

Fires may not start right away depending on many factors but will fester until failure. See the next page to see what a stab connection problem looks and it is 265 deg. F hotter than the other connections.

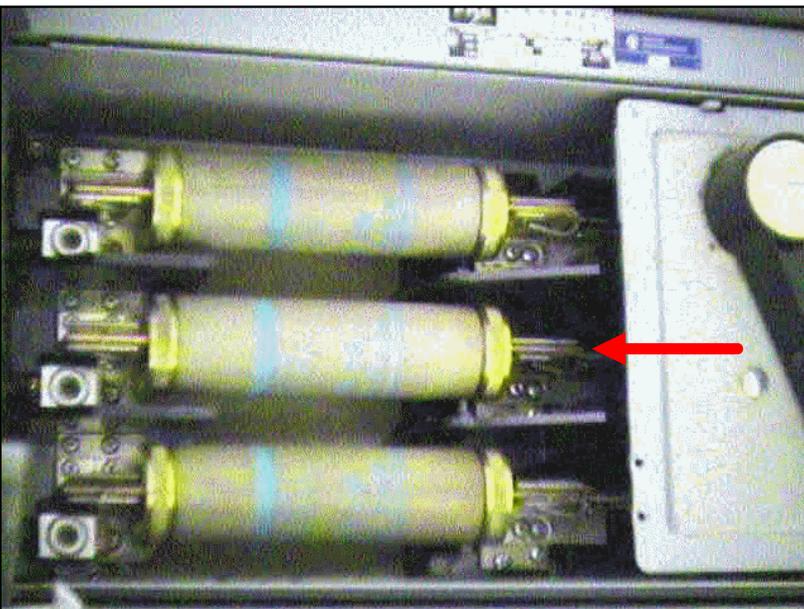


Smart Meter Fires & Stab Connections



On the left is a thermal image and a reference picture. Use the scale to the right of the thermal image for temperature reference.

This is a heavy industrial process inspected **yearly** for the industry and the insurer. Catching electrical failure before it happens prevents explosions, fires, injury, loss of life, production/economic losses.



IR information	Value
Date of creation	7/17/2002
Label	Value
IR : max	379.3°F
SP01	112.5°F
SP02	111.9°F
SP03	108.4°F
SP04	376.1°F

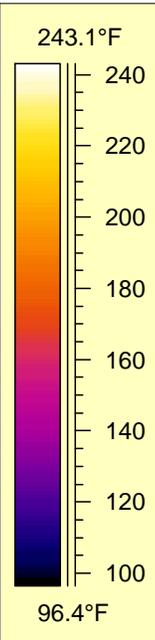
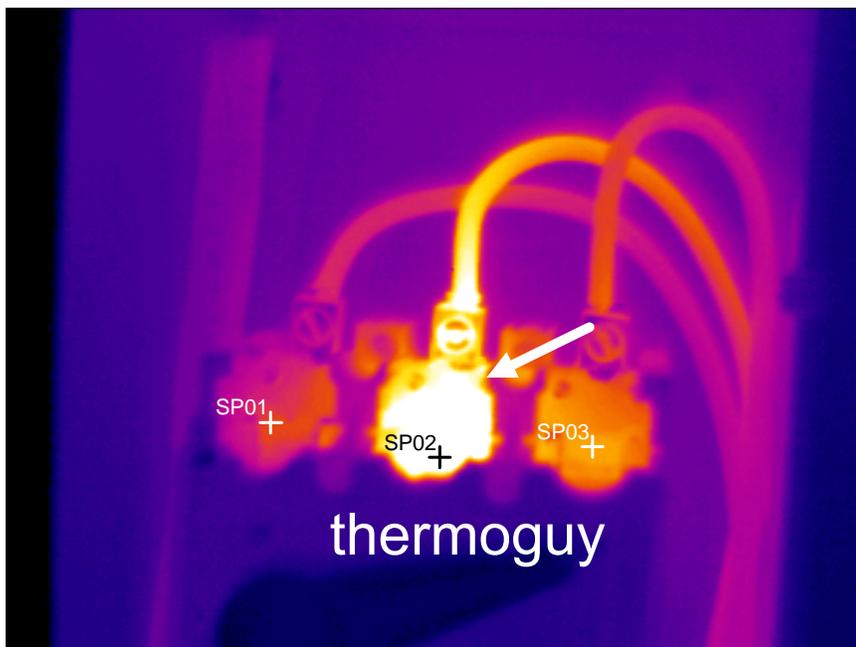
Part of our job as Thermal Radiation Consultants over the last 35 years includes trouble shooting electrical distribution under load to isolate problems for oil, gas, refinery, power plants, lumber, mills, mines, many manufacturing process, buildings, their insurers and the list goes on. Electrical equipment **REQUIRES** maintenance and catching problems before failure prevents significant losses.

Loose or corroded connections account are the biggest problem with electrical equipment. It is a thermal reality with electrical load cycles. Seeing heat at molecular levels allows isolation of electrical problems so the industry's electrical professionals can address the problem.

Meter bases have connections that have never been maintained. Those connections are fragile, require maintenance and are dangerous. Complicate that with contractors touching electrical equipment they shouldn't touch. Pulling meters under load is dangerous, increases damage and increases the chance for failure or fire.



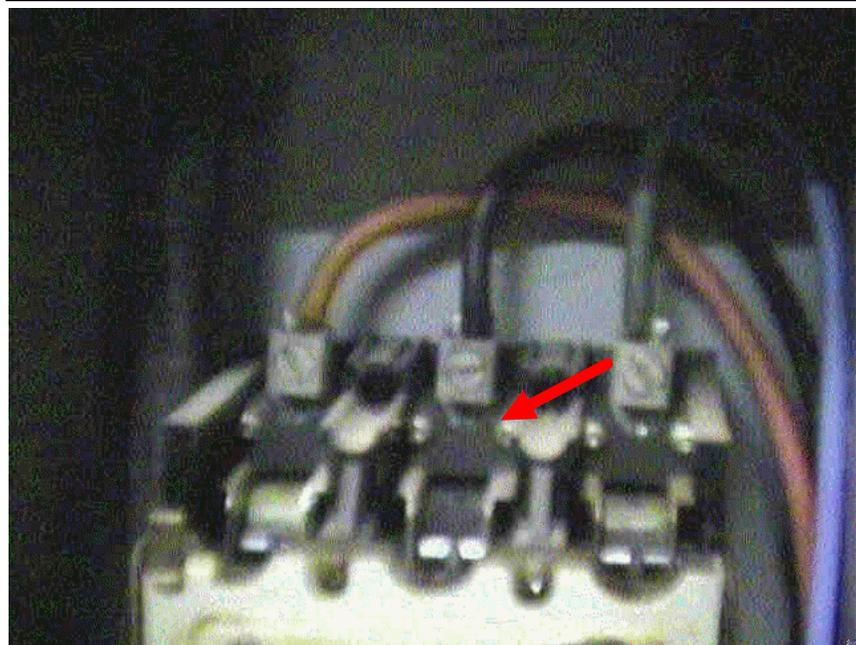
Smart Meter Fires & Wired Connections



Use the temperature scale to the right of the thermal image for color/temperature reference.

Use the zoom feature to magnify areas of interest.

The Result Table below contains information related to the thermal image.

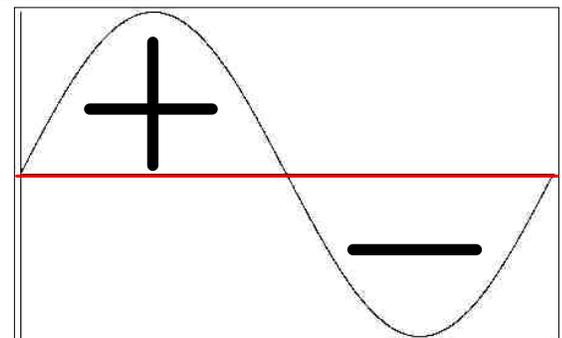
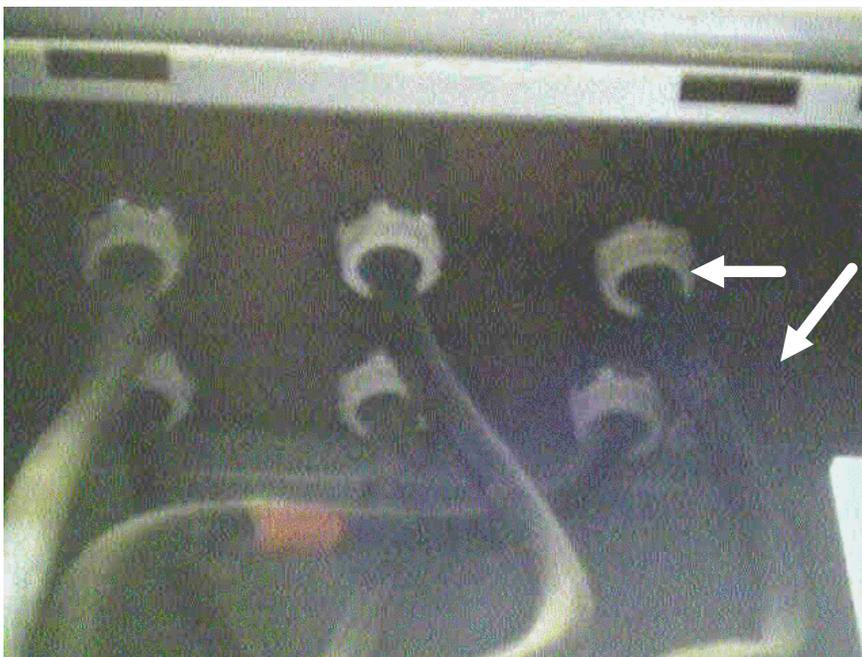
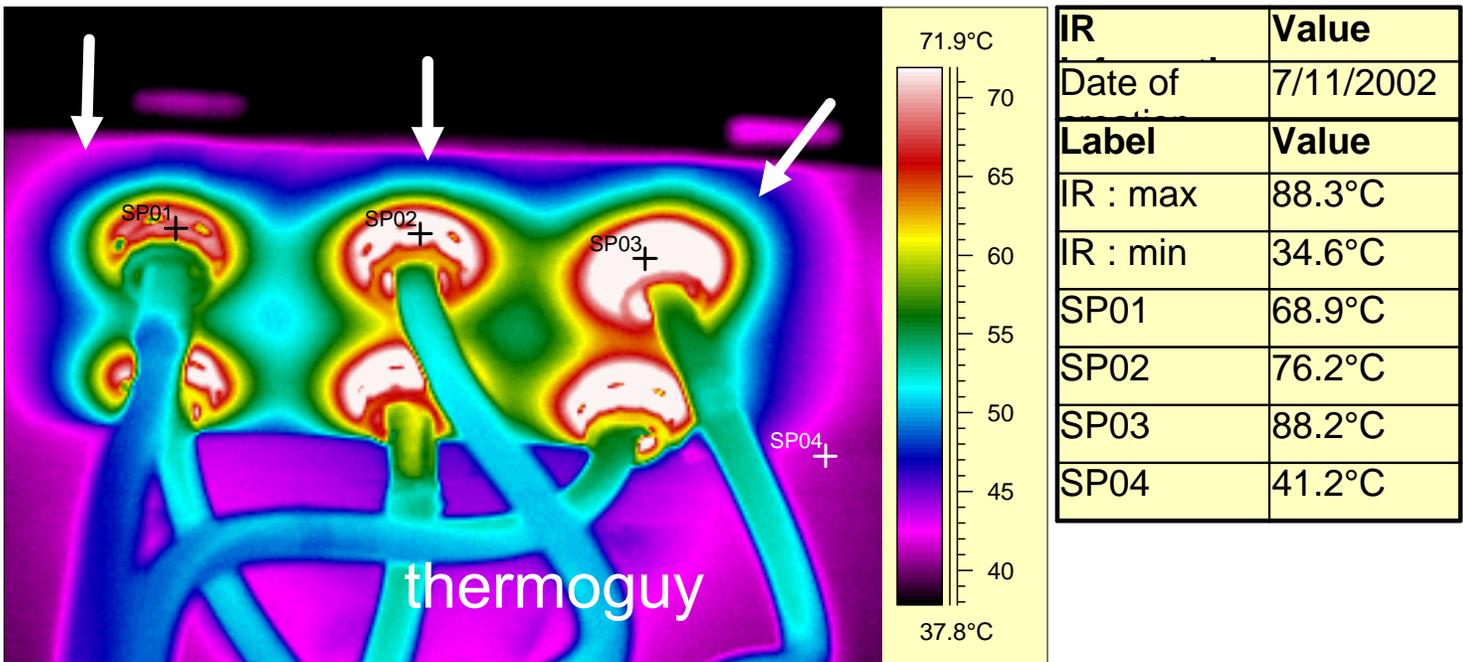


IR information	Value
Date of creation	4/23/2001
Time of creation	1:35:39 PM
Label	Value
IR : max	313.7°F
IR : min	88.4°F
SP01	169.6°F
SP02	313.7°F
SP03	202.5°F

Electrical Meter Bases have wired connections as well as stabs. Qualified electrical professionals would check ALL connections when the meter is pulled.(safely and working with the home owner) Before installing the new meter any electrical problems would be identified and repaired, even replacing the meter based if required. There are no compromises electrically or there will be failurewith consequences that include fires that may happen immediately or later.

In the electrical example above, a faulty wired connection welded in a closed position so they couldn't turn the switch off. It required changing the disconnect live or there would have been electrical failure resulting in explosion, fire or both.

Meter bases on buildings decades old will have fragile electrical components and unqualified contractors create a dangerous environment changing the meters under load.



**1 Cycle of a 60 Hz
Frequency**

60 Hz = 60 Cycles/Sec

EMFs can be extremely dangerous at extremely low frequencies when not installed properly. Here is an example in an inspection for a lumber mill and their insurer at the same time. This is FortisBC's power and the same inspections done on FortisBC's power generation.

Use the temperature scale to the right of the infrared image for reference. The arrows are highlighting heat signatures at the top of the electrical cabinet that exist because the **60Hz** EMF is interacting with the metal cabinet where each single wire comes through.

If the wires were together in a cable, the EMFs would cancel each other out. Separate conductors need an insulating board to avoid EMF interaction. Metal molecules of the cabinet are trying to change direction at twice the frequency. The resultant heat can break down the insulation on the wire and a ground fault will occur. Explosions, fires, lost production, etc can have considerable costs including death.

Smart Meter or Wi-Fi frequencies going through walls and roofs, their speeds are from 900 MHz to 5 GHz. Structural material, fire separations, etc will vibrate 1.8 billion to 10 billion times per second.