

VANCOUVER ELECTRICAL REPAIR

Repair & Troubleshooting

Tripping breakers, dead outlets, flickering lights,
buzzing panels and how electricians diagnose faults
in Metro Vancouver homes

4 Expert Answers from Electric IQ

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Ceiling fan hums and runs slow in my Burnaby bedroom, capacitor or wiring?

A humming, slow ceiling fan in Burnaby is almost always a failed run capacitor, not a wiring fault. Replacing the capacitor typically costs \$150-\$350 all in if an electrician does it, or under \$20 in parts if you are comfortable doing it yourself (more on that below). If the fan is old enough that a capacitor is hard to source, a new mid-range fan and installation runs \$250-\$600.

What the capacitor does and why it fails

The run capacitor shifts the phase on the motor windings to create starting torque and maintain speed. When it degrades, the motor draws more current than it should, runs hot, hums audibly and loses speed. Capacitors in ceiling fans typically last 10-20 years, and Burnaby's older housing stock means a lot of fans installed in the 1990s or early 2000s are right at that threshold now.

A few other things can produce the same symptoms, so it is worth ruling them out before ordering parts. A dimmer switch wired to a fan (instead of a proper fan-speed control) causes a persistent hum and can shorten motor life. If the fan is on a dimmer, that is the first thing to change. A loose blade bracket or a blade that has warped slightly will add a mechanical buzz on top of the electrical hum. Spin the blades by hand with the power off and feel for wobble or a blade that sits at a noticeably different angle than the others.

Wiring faults are less common but worth mentioning. A loose neutral connection at the ceiling box or a corroded wire nut can cause intermittent speed and hum, particularly in homes where the original wiring dates to the 1970s or 1980s. If the fan also flickers, dims unexpectedly or trips a breaker, that points toward a wiring issue rather than the capacitor.

What a homeowner can safely do: With the breaker off and confirmed off at the switch, you can remove the fan's lower canopy, locate the capacitor (a small oval or cylindrical component with two or more wires), photograph the wiring, note the microfarad (μF) rating printed on the side, and order a matching replacement. Swapping the capacitor itself is within most people's comfort level. What you should not do is work inside the ceiling box or on the house wiring without turning off the breaker and confirming the circuit is dead.

When to call an electrician: If the fan is wired through a wall control that turns out to be a dimmer, replacing it with a proper fan-speed control is a straightforward job but does involve working at the wall box. If you open the canopy and find aluminum branch wiring (dull silver conductors rather than copper-coloured), stop and call a licensed contractor. Aluminum wiring was common in Burnaby homes built between roughly 1965 and 1976, and it needs approved connectors and CO/ALR-rated devices at every termination. A licensed electrician can assess and remediate that properly.

For permit purposes, swapping a capacitor or a like-for-like fan replacement on an existing box does not require a permit in Burnaby. Burnaby runs its own electrical permit and inspection program (not Technical Safety BC), so if any new wiring or a new circuit is involved, the permit comes from the City of Burnaby's building department.

If the capacitor swap does not fix it and you want a second opinion on the wiring, Vancouver Electrical Repair can match you with a local Burnaby electrician for a quote at no cost to you.

Q2

Tenant in my Marpole suite says outlets buzz, how urgent is that for a landlord?

Buzzing outlets are urgent, and you should treat this as a same-week call to a licensed electrician, not a "schedule it when convenient" situation.

A buzzing sound from an outlet almost always means one of three things: a loose connection arcing inside the box, an overloaded circuit, or a failing device (receptacle or breaker). Arcing is the one that matters most, because it is the leading cause of electrical fires and it can smoulder inside a wall cavity for hours before anything visible happens. In an occupied rental suite, that risk falls squarely on you as the landlord, both legally and practically.

What makes Marpole suites worth flagging specifically

Marpole has a lot of pre-1960 housing stock, and many of those homes were subdivided into suites over the decades. That means there is a real chance the suite wiring includes knob-and-tube runs, ungrounded two-wire circuits, or connections that have been spliced and re-spliced by non-licensed hands over the years. Aluminum branch wiring from the 1965-1976 era is also common in the area. Both situations make a buzzing outlet more serious, not less, because the underlying wiring may already be at or past its safe service life. BC insurers routinely condition or refuse coverage on homes with live knob-and-tube, so if a claim ever arose from a fire in that suite, the presence of known-but-unaddressed wiring faults would be a serious problem for you.

As a landlord, you are not eligible for a homeowner electrical permit (those are for owner-occupied principal residences only). Any repair work on a rental suite requires a licensed electrical contractor, and depending on the scope, a permit from either Technical Safety BC or, in the City of Vancouver, the city's own electrical inspection program. Marpole is within Vancouver city limits, so the permit authority here is the City of Vancouver, not Technical Safety BC.

A typical single-fault repair, such as replacing a faulty receptacle or tightening a loose connection, runs \$200-\$800 in Metro Vancouver. If the electrician opens the box and finds knob-and-tube or aluminum wiring behind it, the scope and cost can grow, but you need to know that regardless.

Tell your tenant not to use the affected outlets until the electrician has been. Ask the electrician to check whether the buzzing is isolated to one box or whether it points to a circuit or panel issue. A good quote for this job should include diagnosis, the repair, and any permit required for new work (a like-for-like receptacle replacement on an existing box generally does not need a permit, but anything beyond that does).

Before hiring, ask the contractor for their Technical Safety BC licence number and confirm WorkSafeBC coverage is in place. Confirm the permit is included in the quote if the scope goes beyond a simple device swap.

Want quotes on this? Vancouver Electrical Repair can match you with local electricians for free.

Q3

Power flickers in my Richmond townhouse every evening, is the neighbour's EV charger to blame?

Power flickering every evening in a Richmond townhouse most likely points to a loose connection somewhere in your own electrical system, not your neighbour's EV charger. That said, the timing pattern is worth taking seriously, and the fix typically runs \$200-\$800 for a connection repair, rising to \$3,500-\$6,000 if the fault turns out to be a failing service or panel.

Why the Timing Feels Suspicious but Usually Isn't

Evening flickers are extremely common in Metro Vancouver because that is when households draw the most power simultaneously: ovens, dryers, dishwashers, electric baseboard heaters and, yes, EV chargers all ramp up between 5 and 9 pm. The increased load exposes loose or corroded connections that hold fine under light daytime use. A neighbour's Level 2 charger draws 24-48 amps on a dedicated circuit fed from their own panel and service, so it cannot directly cause a voltage drop in your unit. What it can do is contribute to a shared transformer being heavily loaded, but that would typically affect the whole street, not just your townhouse.

The more likely culprits, in order of probability, are a loose neutral connection at your in-suite panel, a corroded connection at the meter base or in the common electrical room, a failing breaker, or a loose connection at a heavily used outlet or appliance. Townhouses built in Richmond between the 1970s and 1990s sometimes have aluminum branch wiring, and aluminum connections loosen over time, especially under thermal cycling from repeated heavy loads. **A warm, buzzing or discoloured panel face or outlet is a sign to stop using that circuit and call an electrician the same day.**

Richmond is served by Technical Safety BC for electrical permits and inspections, not a municipal electrical department, so any repair work that goes beyond a like-for-like device swap will involve a Technical Safety BC

permit. For a townhouse, you also need to be clear on what is in-suite versus common property. The wiring from the electrical room to your meter and panel is almost certainly strata common property, which means the strata corporation is responsible for it and any repair there requires strata council involvement before an electrician touches it.

What a proper diagnosis looks like: An electrician will start with a service call (\$150-\$300) and use a voltage logger or clamp meter to confirm whether the voltage is actually dropping or whether the flicker is a loose connection causing a momentary interruption. Those are different faults with different fixes. Ask the electrician to check the meter base connections, the main breaker, and any aluminum wiring terminations while they are there.

Before hiring, confirm the contractor holds a Technical Safety BC licence and that their FSR (Field Safety Representative) number is current. Ask whether the service call fee applies toward the repair if they find the fault on the first visit, and whether a permit is included if new work is needed. If the fault is in the common electrical room, loop in your strata council before authorizing any work.

Want quotes for this? Vancouver Electrical Repair can match you with local Richmond electricians for free.

Whole house goes dim then bright in Langley, could it be a BC Hydro problem?

Yes, this is almost certainly a BC Hydro supply problem, not your house wiring, and it needs to be reported to BC Hydro today, because the underlying fault can damage appliances and, in rare cases, create a fire risk.

What's Actually Happening

Your home is fed by a 240V split-phase service: two 120V legs coming in from BC Hydro's transformer on the street. When the *whole house* dims and brightens together, the classic cause is a loose or failing neutral connection on BC Hydro's side, at the service drop, the weatherhead connection, or the meter base. When the shared neutral loses integrity, the two legs fall out of balance. Circuits on one leg sag to 90V or lower while circuits on the other leg surge to 150V or higher. That voltage swing is what makes your lights dim and bright simultaneously, and it's what kills motors, compressors and electronics.

A second possibility is a problem on BC Hydro's distribution line or transformer serving your block, a loose connection on a pole, a failing transformer tap, or storm damage. Langley sees its share of windstorm-related line faults in fall and winter, and the symptom looks identical from inside the house.

If you're seeing this right now, unplug sensitive electronics, TVs, computers, refrigerators, chest freezers, until the voltage stabilises. A sustained overvoltage event can burn out compressors and power supplies silently.

What it is probably *not*: a fault inside your own panel. A breaker problem or a bad connection in your panel would typically affect only part of the house, one leg's circuits, not everything at once. If only half your house is dim (one leg), that shifts the diagnosis toward your panel or meter base, which is still urgent but is a different conversation.

Who Fixes What in Langley.

BC Hydro owns everything from the transformer up to and including the meter. The service drop wires, the weatherhead connection and the meter base are theirs to repair at no charge to you. If you see smoke, hear arcing or smell burning, leave the building and call emergency services from outside. Otherwise report it to your electricity utility as an urgent fault and describe the symptom exactly: "whole house dimming and brightening, suspected neutral issue." Utilities treat this as an urgent fault and will dispatch a crew to check the meter base and the drop.

The licensed electrician's territory starts at the service entrance conductors below the meter, the panel, the main breaker and all branch wiring. If BC Hydro inspects and finds their equipment is fine, the fault is likely at the meter base connection or the service entrance on your side, and a licensed electrical contractor needs to investigate. In Langley, electrical permits are issued through Technical Safety BC (not a municipal department), so any repair to the service entrance or panel will follow that permit path.

What to Do Right Now.

Report it to BC Hydro immediately. Note the time the fluctuations started and whether they're constant or intermittent, that helps their crew locate the fault. If the dimming is severe or you smell burning plastic anywhere near the meter, weatherhead or panel, treat it as an emergency.

Once BC Hydro clears their equipment, if the problem persists, get a licensed electrical contractor to inspect the meter base connections and service entrance. Ask for their Technical Safety BC licence number and confirm WorkSafeBC coverage before they start work. Meter base repairs in Metro Vancouver typically run **\$400–\$1,200** depending on whether the base needs replacement and whether BC Hydro needs to disconnect and reconnect the service.

Want quotes from local Langley electricians once BC Hydro has been out? Vancouver Electrical Repair can match you with someone for free.

Disclaimer: This guide is provided for informational purposes only by Vancouver Electrical Repair. It does not constitute professional advice. Always consult qualified, licensed contractors and your local electrical authority (your municipality or Technical Safety BC) before starting any electrical project. Information is current as of October 4, 2026 and may change. Visit vancouverelectricalrepair.com for the latest answers.