NEW BRUNSWICK KITCHENS

Kitchen Electrical

Under-cabinet lighting, outlet installation, dedicated circuits, panel upgrades, and code-compliant electrical work

19 Expert Answers from Kitchen IQ

newbrunswickkitchens.com/construction-brain

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Q1

How do I calculate whether my existing electrical panel can handle a full kitchen renovation in Fredericton NB?

Most older homes in Fredericton have 60-amp electrical panels that cannot safely support a modern kitchen renovation. You'll need to calculate your total electrical load and compare it to your panel's capacity to determine if an upgrade is necessary.

Understanding Your Current Panel

Start by locating your electrical panel and checking the main breaker size — it's usually printed on the large breaker at the top. In Fredericton's older neighborhoods like Nashwaaksis, Devon, and the Southside, homes built before 1980 typically have 60-amp panels, while those from the 1980s-1990s often have 100-amp service. Modern homes need 200-amp panels for full electrical capacity.

Your panel's nameplate will show the maximum amperage. If you see an old Federal Pioneer, Zinsco, or Pushmatic panel, these should be replaced regardless of amperage — they're fire hazards and insurance companies often won't cover homes with these panels.

Calculating Kitchen Electrical Loads

The NB Building Code requires specific circuits for modern kitchens. Add up these mandatory loads: two 20-amp small appliance circuits (40 amps total), plus dedicated circuits for refrigerator (15 amps), dishwasher (15 amps), range or cooktop (30-50 amps), wall oven if separate (30 amps), microwave (15 amps), and garburator (15 amps). This totals 160-190 amps just for kitchen appliances.

Beyond the Kitchen

Don't forget your home's other electrical needs. Forced-air furnaces draw 15-20 amps, electric water heaters need 30-40 amps, and clothes dryers require 30 amps. Add lighting circuits (15 amps each), basement outlets, and any 240V equipment like electric car chargers or workshop tools. A typical Fredericton home needs 150-200 amps total capacity.

The Reality Check

If your calculation exceeds 80% of your panel's capacity, you need an upgrade. A 60-amp panel maxes out at 48 amps safely (80% rule), which can't even handle a modern kitchen's requirements. Most kitchen renovations in Fredericton require upgrading to at least 100-amp service, with 200-amp becoming the standard for future-proofing.

Professional Assessment Required

While you can do this rough calculation, hire a licensed electrician for the official load calculation. NB Power requires a professional assessment before approving service upgrades. Electrical panel upgrades in Fredericton cost $1,500-$4,000 depending on whether the service entrance needs upgrading and how far your panel is from the street connection.

Timing Your Upgrade

Plan the electrical upgrade before starting your kitchen renovation. The electrician will need to coordinate with NB Power for the service upgrade, which can take 2-4 weeks. Some Fredericton contractors won't start kitchen work until they confirm adequate electrical capacity — it's a liability issue if circuits overload during construction.

Need help finding a qualified electrician for your load calculation? New Brunswick Kitchens can connect you with local electrical contractors who specialize in residential upgrades and kitchen renovations.

Q2

What does it cost to remediate or replace aluminum wiring in an older New Brunswick kitchen, and is it required during renovation?

Aluminum wiring replacement in an older NB kitchen typically costs $2,000-$5,000 depending on the kitchen size and electrical panel upgrades needed. While not always legally required during cosmetic renovations, it's strongly recommended for safety and may be mandated if you're adding new circuits or upgrading electrical service.

Understanding Aluminum Wiring in NB Homes

Aluminum wiring was commonly installed in New Brunswick homes built between 1965-1975, particularly in subdivisions around Moncton, Saint John, and Fredericton during the housing boom. The main safety concern is aluminum's tendency to expand and contract more than copper, causing connections to loosen over time. This creates heat buildup and fire risk, especially at outlets, switches, and junction boxes where aluminum meets other metals.

In kitchens, aluminum wiring is particularly problematic because of the high electrical loads from multiple appliances. The combination of NB's temperature swings (from -25°C winters to +30°C summers) accelerates the expansion-contraction cycle, making connections even more prone to failure. Many insurance companies now require disclosure of aluminum wiring and some may increase premiums or require remediation.

When Replacement is Required vs Recommended

The NB Electrical Safety Code doesn't automatically require aluminum wiring replacement during kitchen renovations, but it does mandate that any new electrical work meet current standards. If you're adding circuits for a dishwasher, upgrading your electrical panel, or moving outlets, the electrical inspector may require the entire kitchen to be brought up to current code - which effectively means copper wiring.

Remediation vs Full Replacement Options

You have three main approaches: **COPALUM connectors** ($800-$1,500) use special crimping to safely connect aluminum to copper pigtails at each outlet and switch - this is the least expensive option but only addresses connection points. **Aluminum-rated devices** ($300-$800) involve replacing all outlets, switches, and fixtures with AL-CU rated components, though these are becoming harder to find and aren't a long-term solution. **Complete rewiring** ($2,000-$5,000) replaces all aluminum branch circuits with copper wiring - this is the most expensive but provides the best long-term safety and eliminates insurance concerns.

NB-Specific Considerations

Many older NB homes with aluminum wiring also have 60-amp or 100-amp electrical panels that can't support modern kitchen electrical loads. A typical kitchen renovation requires dedicated 20-amp circuits for small appliances, plus individual circuits for the refrigerator, dishwasher, range, and microwave. Upgrading to a 200-amp panel adds $2,000-$4,000 to the project but may be necessary regardless of the wiring type.

Rural NB properties may face additional challenges finding electricians experienced with aluminum wiring remediation. The work requires specialized COPALUM crimping tools and training, so not all electrical contractors can perform this service. Plan for longer scheduling times and potentially higher costs in areas outside the major urban centers.

Professional Assessment is Essential

Never attempt DIY diagnosis or remediation of aluminum wiring - this requires a licensed electrician's assessment. They'll test connections, check for overheating signs, and determine whether your specific installation can be safely upgraded or needs complete replacement. Some aluminum wiring installations are in better condition than others, and an experienced electrician can often save you money by identifying which circuits truly need attention.

Need help finding a qualified electrician for your kitchen renovation? New Brunswick Kitchens can connect you with local electrical contractors experienced in older home renovations through the New Brunswick Construction Network.

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Q3

How much do smart switches and smart lighting cost to install in a Fredericton kitchen renovation?

Smart switches and smart lighting typically add $300-$800 to a Fredericton kitchen renovation, depending on how many switches you're upgrading and whether you need new wiring. Basic smart switches run $25-$60 each, while smart dimmer switches cost $40-$80, plus $75-$150 per switch for professional installation if new wiring is required.

For a typical Fredericton kitchen, you're looking at **4-6 switch locations** — main ceiling lights, under-cabinet lighting, pendant lights over an island, and possibly a pantry or breakfast nook. If you're replacing existing switches on the same circuits, installation is straightforward. However, many older Fredericton homes built in the 1960s-1980s have outdated electrical systems that may need upgrades to support smart switches properly.

Smart switch options and costs break down like this: Standard smart switches (on/off only) cost $25-$45 each and work well for under-cabinet LED strips or pantry lights. Smart dimmer switches run $40-$80 and are perfect for main kitchen lighting and pendant lights over islands. Motion-sensing smart switches cost $50-$90 and work great for pantry or mudroom areas. If you want voice control through Alexa or Google, expect to pay toward the higher end of these ranges.

Installation complexity varies significantly in Fredericton's older housing stock. If your kitchen has modern wiring with neutral wires in each switch box, installation is usually $50-$75 per switch. However, many homes built before 1990 lack neutral wires, requiring an electrician to run new cable — this pushes installation costs to $100-$150 per switch location. Some smart switches don't require neutrals, but they're typically more expensive and have fewer features.

Under-cabinet smart lighting is particularly popular in kitchen renovations, running $150-$400 for a complete system. Smart LED strip lights cost $8-$15 per foot, with most kitchens needing 12-20 feet of coverage. Add a smart controller ($40-$80) and professional installation ($200-$400), and you're looking at a total investment that pays off in both functionality and ambiance.

Timing considerations are important in Fredericton renovations. Smart switches should be installed after drywall is complete but before final cabinet installation. If you're doing a full kitchen gut renovation, this is the perfect time to upgrade electrical rough-in for smart home compatibility. Plan for electrical work during the renovation's rough-in phase — trying to add smart switches after cabinets are installed often means removing and reinstalling cabinetry.

Professional installation is required for any new circuits or switch relocations in New Brunswick. While replacing an existing switch with a smart version might seem like DIY territory, NB's electrical code requires permits and inspections for most electrical changes. A licensed electrician ensures proper installation, code compliance, and warranty protection.

Need help finding a kitchen renovator who can integrate smart lighting into your Fredericton project? New Brunswick Kitchens can match you with local contractors experienced in modern electrical upgrades.

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Q4

How much does under-cabinet lighting cost to install in NB?

Under-cabinet lighting installation in a New Brunswick kitchen typically costs $300 to $1,500, depending on whether you choose plug-in LED strips (DIY-friendly) or hardwired puck and linear lights (professional installation required). This is one of the highest-impact, lowest-cost upgrades you can make during a kitchen renovation — or even as a standalone project.

Plug-in LED strip lights are the most affordable option, running $50 to $200 for materials covering a typical kitchen's upper cabinets (8 to 12 linear feet). These adhesive-backed strips plug into a standard outlet, so no electrical work is required. You can install them yourself in an afternoon. The downside is visible cords running to an outlet, which looks less polished than a hardwired solution. However, many NB homeowners tuck the cord behind the cabinet or use a discreet cord channel to keep things tidy.

Hardwired LED puck lights provide focused task lighting at specific zones — above the cutting board area, above the stove prep space, and above the sink. Professional installation costs $500 to $1,200 for a typical kitchen with 6 to 10 puck lights. This includes the fixtures ($15 to $40 each), a low-voltage transformer, wiring through the cabinet interiors or wall cavity, and connection to a dedicated switch. The result is clean, cord-free lighting controlled by a wall switch or dimmer.

Hardwired LED light bars or linear strips are the premium option and the most popular choice during full kitchen renovations in the Moncton, Fredericton, and Saint John markets. These continuous strips mount to the underside of each upper cabinet and provide even, shadow-free task lighting across the entire countertop. Professional installation runs $800 to $1,500 for a full kitchen, including the fixtures, transformer, wiring, and a dimmer switch. The even light distribution makes a noticeable difference for food prep, especially during NB's dark winter months when natural light is limited from November through March.

Installation Timing and Electrical Considerations

If you are doing a full kitchen renovation, under-cabinet lighting should be planned during the **electrical rough-in phase** — before drywall and cabinets go in. Your electrician can run wiring through the wall cavity to the cabinet locations and install a switch or dimmer at an ideal location. Adding hardwired under-cabinet lighting during a renovation adds only $300 to $600 in incremental electrical costs because the electrician is already on site.

Retrofitting hardwired under-cabinet lights into an existing kitchen is more involved. The electrician needs to fish wire through finished walls or run it through the cabinet interiors, which adds labour cost. Expect $600 to $1,500 for a retrofit installation depending on how accessible the wiring path is.

For the best results, choose **LED fixtures with a colour temperature of 3000K to 3500K** — warm enough to be inviting but bright enough for task work. Avoid anything above 4000K, which creates a harsh, clinical feel in a home kitchen. A dimmer switch ($30 to $75 installed) is highly recommended so you can adjust brightness for cooking versus ambient evening lighting.

Under-cabinet lighting is one of the few kitchen upgrades where the plug-in DIY route delivers genuinely good results. If you are not ready for a full renovation but want to improve your kitchen's functionality, LED strip lights are an excellent starting point that you can install yourself this weekend.

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Q5

What is the cost of a kitchen electrical panel upgrade in NB?

A kitchen-driven electrical panel upgrade in New Brunswick costs $1,500 to $4,000, depending on whether you are going from 60 amps to 100 amps or from 100 amps to 200 amps. Many older NB homes — particularly those built in the 1960s through the 1980s — still have 60-amp panels that simply cannot support a modern kitchen with today's appliances and code requirements.

A **60-amp to 100-amp upgrade** runs $1,500 to $2,500 and is the minimum needed if you are adding a modern kitchen with a dishwasher, range, microwave, refrigerator, and multiple countertop circuits. This scope includes a new 100-amp panel, new main breaker, transferring existing circuits, and adding capacity for new kitchen circuits. A **100-amp to 200-amp upgrade** costs $2,500 to $4,000 and is the better long-term investment, especially if you are also considering electric vehicle charging, heat pumps, or a hot tub down the road. Most electricians in Moncton, Fredericton, and Saint John recommend going straight to 200 amps during a major kitchen renovation since the incremental cost is only $500 to $1,000 more than a 100-amp panel.

The NB Building Code requires **specific dedicated circuits** for a modern kitchen: two 20-amp small appliance circuits for countertop outlets, plus dedicated circuits for the refrigerator, dishwasher, range or oven, microwave,

and garburator if you are installing one. That is a minimum of six to seven circuits just for the kitchen. A 60-amp panel typically has only 12 to 16 circuit spaces total for the entire house, which means there is physically no room to add the required kitchen circuits without upgrading.

What the Upgrade Involves

The work typically takes one full day and involves shutting off power to the house for 4 to 8 hours. Your electrician will remove the old panel, install the new panel in the same location (or relocate it if the current spot is not code-compliant), reconnect all existing circuits, and add new breakers for the kitchen renovation. If your home still has an **outdoor meter base with a separate indoor panel**, the meter base may also need upgrading to handle the higher amperage — NB Power will need to disconnect and reconnect service, which your electrician coordinates as part of the job.

For homes with **knob-and-tube wiring** (common in pre-1950 NB homes), a panel upgrade alone is not sufficient. The knob-and-tube circuits cannot be connected to modern breakers without rewiring, so you are looking at additional rewiring costs of $3,000 to $8,000 for the kitchen area, depending on accessibility.

Permits are mandatory for panel upgrades in New Brunswick. Your electrician pulls the electrical permit through your local municipality or Regional Service Commission, and the work must pass inspection before the panel is energized at full capacity. Permit fees run $75 to $200 depending on the municipality. Never hire an electrician who suggests skipping the permit — it is a code violation, an insurance risk, and could complicate a future home sale.

The panel upgrade should be scheduled **early in your renovation timeline** — ideally as the first electrical task. All subsequent kitchen electrical work depends on having adequate panel capacity. If you are planning a kitchen renovation in NB and your home has a 60-amp panel, budget for this upgrade from the start. It is not optional — it is a prerequisite for a safe, code-compliant modern kitchen.

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Q6

Do I need to replace knob-and-tube wiring for a kitchen reno in NB?

Yes, knob-and-tube wiring must be replaced in any area affected by a kitchen renovation in New Brunswick — it cannot remain in walls where new insulation is being added, and it does not meet current NB Building Code requirements for kitchen circuits. While you are not legally required to rewire your entire house, any circuits being modified, extended, or in areas where walls are opened during the renovation must be brought up to current code.

Knob-and-tube (K&T) wiring was standard in NB homes built before 1950 and is occasionally found in homes built as late as the early 1960s. It consists of individual wires run through ceramic knobs and tubes — there is no ground wire, no modern insulation rating, and the circuits are not designed for today's kitchen loads. Modern kitchen code requires **grounded circuits, GFCI protection, and dedicated 20-amp small appliance circuits** — none of which are possible with knob-and-tube wiring.

Why K&T Is Incompatible with Kitchen Renovations

The most critical issue is **insulation contact**. Knob-and-tube wiring was designed to dissipate heat into open air within wall and ceiling cavities. When insulation — whether blown-in, batt, or spray foam — contacts K&T wiring, the heat cannot escape and the fire risk increases significantly. During a kitchen renovation, if you are opening walls to run new plumbing, add electrical circuits, or improve insulation, any K&T wiring in those walls must come out. An electrical inspector will flag it, and your renovation will not pass inspection if K&T remains in contact with insulation.

Beyond the code requirements, there are practical reasons to replace K&T during a kitchen renovation. The wiring is 60 to 100+ years old, and the cloth insulation on the conductors becomes brittle and cracks over time, exposing bare copper. The connections at junction points can loosen with age. And because there is no ground wire, you cannot install grounded outlets — which means no GFCI protection at countertop locations as required by current code.

The cost to replace knob-and-tube wiring in the kitchen area typically runs $3,000 to $8,000 in New Brunswick, depending on the size of the kitchen, accessibility of the wall and ceiling cavities, and how many circuits need to be run. This includes removing the old K&T, running new NMD90 (Romex) cable with proper grounding, installing new outlets and switches, and connecting everything to a modern panel. If your panel also needs upgrading from 60 amps — which is almost always the case in a K&T home — add $1,500 to $2,500 for the panel upgrade.

This work requires an **electrical permit** from your local municipality or Regional Service Commission, and both a rough-in inspection (before walls are closed) and a final inspection are mandatory. Your electrician handles the permit application, but make sure they provide you with the permit number and inspection results.

The silver lining is that a kitchen renovation is the most cost-effective time to deal with K&T wiring. The walls are already being opened, the electrician is already on site for new kitchen circuits, and the incremental cost of removing K&T while everything is accessible is far less than doing it as a standalone project later. If you are renovating a kitchen in an older NB home — particularly in the heritage neighbourhoods of Fredericton, Saint John, or Moncton — ask your electrician to assess the entire kitchen area for K&T during the initial site visit so the full scope and cost are clear before work begins.

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Q7

How many outlets do I need on my kitchen countertop per NB code?

The NB Building Code requires that no point along a kitchen countertop be more than 900mm (approximately 3 feet) from an outlet, and you need a minimum of two 20-amp small appliance circuits dedicated to countertop receptacles. In practical terms, a typical NB kitchen with 10 to 15 linear feet of countertop needs 4 to 8 outlets to meet code and provide adequate convenience.

The specific rule is based on the Canadian Electrical Code (CEC), which New Brunswick adopts. Every countertop space wider than 300mm (12 inches) must have at least one outlet, and outlets must be spaced so that no point along the counter is more than 900mm from a receptacle. This means that on a long run of countertop, you will have outlets roughly every 4 to 6 feet at minimum. Island countertops also require at least one outlet if the island has a countertop surface.

These countertop outlets must be on **dedicated 20-amp small appliance circuits** — a minimum of two circuits that serve only the kitchen countertop and dining area receptacles. No other loads (lighting, refrigerator, dishwasher) can be on these circuits. The reasoning is practical: kitchen countertop appliances like toasters, kettles, stand mixers, and coffee makers draw significant amperage, and sharing circuits with other loads trips breakers.

GFCI Protection Requirements

All countertop outlets within 1.5 metres of a sink must have GFCI (ground fault circuit interrupter) protection. In most NB kitchens, this effectively means all countertop outlets need GFCI protection, since kitchen countertops are rarely more than 1.5 metres from the sink. You can achieve this with individual GFCI outlets at each location ($25 to $40 each) or with a GFCI breaker in the panel that protects the entire circuit ($40 to $60 each). Most electricians in New Brunswick prefer GFCI breakers because they protect the whole circuit and keep the outlet faces clean-looking.

For **kitchen islands**, at least one outlet is required by code, and it must also be on one of the 20-amp small appliance circuits. The challenge with island outlets is routing the wiring — the circuit typically runs through the floor from below. During a renovation, your electrician runs the cable through the subfloor and up through the island cabinet base before the countertop is installed. This must be planned during the rough-in phase, not after cabinets and countertops are in place.

Practical Recommendations Beyond Code Minimums

While code sets the minimum, most kitchen designers and electricians in Moncton, Fredericton, and Saint John recommend **exceeding code requirements** for countertop outlets. Consider how many small appliances you use simultaneously — coffee maker, toaster, kettle, stand mixer, phone charger — and plan accordingly. Adding two or three extra outlets during a renovation costs $75 to $150 per outlet when the electrician is already on site, which is trivial compared to the cost of adding outlets after the renovation is complete.

If your current kitchen is in an older NB home with only one or two outlets on the countertop — common in homes built before the 1980s — bringing the outlets up to current code is required when you pull an electrical permit for the renovation. This is not optional; once you open a permit, the inspected work must meet current code. Budget $500 to $1,500 for countertop outlet upgrades as part of your overall electrical scope, depending on how much new wiring needs to be run.

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Q8

What is the best lighting layout for a NB kitchen renovation?

The best kitchen lighting layout uses a three-layer approach: ambient (general) lighting from recessed ceiling fixtures, task lighting under cabinets and over work zones, and accent or decorative lighting to add warmth and character. This layered strategy ensures your kitchen is well-lit for cooking, comfortable for dining, and looks inviting — which matters especially during New Brunswick's long, dark winter months from November through March when natural light is scarce.

Ambient lighting forms the foundation. Recessed LED pot lights are the standard choice in NB kitchen renovations, spaced 4 to 5 feet apart in a grid pattern across the ceiling. A typical 10-by-12-foot kitchen needs 4 to 6 recessed lights to provide even, shadow-free general illumination. Use 4-inch fixtures for standard 8-foot ceilings (common in older NB homes) and 6-inch fixtures for 9-foot or vaulted ceilings. Position the first row of lights 24 to 30 inches from the wall so they illuminate the countertop and cabinet faces rather than creating shadows. Budget $75 to $150 per recessed light installed during a renovation, or $400 to $900 total for a typical kitchen.

Task lighting is where many NB kitchen renovations fall short, and it makes the biggest difference in daily functionality. Under-cabinet LED lights illuminate countertop work surfaces directly, eliminating the shadows your body casts when you stand between the overhead light and the counter. Hardwired LED light bars running the full length of each upper cabinet section are the gold standard, costing $800 to $1,500 installed for a full kitchen. Pair these with a dimmer so you can use them at full brightness for chopping vegetables and at low intensity for evening ambiance.

Above the **kitchen island or peninsula**, pendant lights or a linear chandelier provide both task and decorative lighting. Hang pendants 30 to 36 inches above the island countertop surface — low enough to illuminate the workspace but high enough that they do not obstruct sightlines. For a 6-foot island, two pendants spaced 24 to 30 inches apart work well. For an 8-foot island, use three pendants. Budget $200 to $800 for the fixtures plus $150 to $300 for installation.

NB-Specific Lighting Considerations

New Brunswick's northern latitude means kitchens receive significantly less natural daylight in winter compared to summer. A well-designed lighting plan compensates for this by providing **ample artificial light at the right colour temperature**. Choose LED fixtures in the 2700K to 3000K range for warm, inviting light that mimics natural daylight without feeling cold or clinical. Avoid anything above 4000K in a residential kitchen.

Many older NB homes have kitchens with a **single ceiling-mounted fluorescent box light** — a relic of 1970s and 1980s construction. Replacing this with a proper layered lighting layout is one of the most transformative changes in a kitchen renovation. Your electrician will cap off the old fixture location, patch the ceiling, and install new recessed cans and switch circuits.

Put each lighting layer on a **separate switch or dimmer**. This gives you full control: bright task and ambient lighting for cooking, dimmed ambient with accent lighting for entertaining, or just under-cabinet lights for a late-night snack. Three-way dimmers cost $30 to $75 each installed and are well worth the investment. Plan your switch locations during the electrical rough-in phase — typically near the main kitchen entry point and at a secondary entry if your kitchen has multiple doorways.

Total budget for a complete lighting redesign during a kitchen renovation in New Brunswick runs $1,500 to $3,500 including fixtures, wiring, switches, and installation — a modest investment that dramatically improves how your kitchen looks and functions.

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Q9

Should I use LED recessed lights or pendant lights over my kitchen island?

For most NB kitchen islands, the best approach is pendant lights for visual impact and character combined with recessed lights nearby for supplemental task lighting — but if you must choose one, pendants are the stronger choice for islands because they define the space and provide focused, adjustable illumination right where you need it.

Pendant lights hung 30 to 36 inches above the island countertop deliver concentrated downlight onto the work surface, which is ideal for food prep, homework, and casual dining. They also serve as a design centrepiece that anchors the kitchen visually. For a standard 5-to-6-foot island, two pendants spaced evenly work well. For a longer 7-to-8-foot island — increasingly popular in NB kitchen renovations — three pendants maintain balanced proportions. Budget $100 to $400 per pendant fixture for quality options, plus $150 to $300 total for electrical installation if the wiring is already roughed in.

Recessed LED lights, by contrast, provide broad, even illumination from the ceiling and disappear visually. They are excellent for general kitchen lighting but less effective as standalone island lighting because they sit 8 to 9 feet above the countertop (in a standard NB home with 8-foot ceilings), which dilutes the light intensity at the work surface. Where recessed lights shine — literally — is as **supplemental lighting around the island perimeter**, filling in shadows and providing overall brightness that pendants alone cannot achieve.

The Combined Approach

The most effective island lighting plan uses both. Position recessed lights in the ceiling around the island's perimeter (not directly above it, where pendants hang) and install pendants centred over the island. The recessed lights handle ambient coverage for the surrounding floor and traffic areas, while the pendants deliver focused task light and design interest directly over the counter. This combination costs $600 to $1,500 total for fixtures and installation during a renovation — a modest premium over either option alone.

If your kitchen has **8-foot ceilings** — the norm in most NB homes built from the 1960s through the 2000s — pendant height is critical. With the pendant hanging 30 to 36 inches above the countertop (which sits at 36 inches off the floor), the bottom of the pendant will be roughly 66 to 72 inches above the floor. This works fine for most

people, but in a small kitchen where the island is close to a traffic path, choose pendants with a compact profile to avoid anyone bumping into them. Mini-pendants or drum shades with a 10-to-12-inch diameter are practical for tighter spaces.

For **higher ceilings** (9 to 10 feet, found in some newer NB builds and open-concept renovations), you have more flexibility. Larger pendant fixtures with longer drop rods create dramatic visual impact without crowding the space.

Practical Decisions for NB Kitchens

Consider your island's primary function. If it is mainly a **prep and cooking surface**, prioritize task lighting — pendants with open or translucent shades that direct light downward. If the island is primarily for **dining and socializing**, warmer ambient pendants with dimmers create a more comfortable atmosphere. Either way, install a dimmer switch ($30 to $75 installed) so you can adjust brightness for different activities and times of day.

During NB's long winter evenings, your island lighting sets the tone for the entire kitchen. Pendants at 2700K to 3000K colour temperature provide warm, inviting light that makes the space feel comfortable during those dark months from November through March. Recessed lights can be slightly cooler (3000K to 3500K) for better task visibility without clashing.

Plan your island lighting during the **electrical rough-in phase** of your renovation. Your electrician needs to know the pendant locations to install junction boxes in the ceiling at the correct positions — which depends on your final island dimensions and placement. Coordinate with your kitchen designer or contractor so the electrical, cabinetry, and countertop teams are all working from the same layout.

Q10

How much does it cost to add a dedicated circuit for a kitchen range in NB?

Adding a dedicated circuit for a kitchen range in New Brunswick typically costs $300 to $800, depending on your panel's capacity, the distance from the panel to the kitchen, and whether your home needs a panel upgrade. A standard electric range requires a 240-volt, 40- or 50-amp dedicated circuit with a properly rated receptacle (NEMA 14-50 is most common), and this work must be done by a licensed electrician with a permit and inspection through your local municipality.

The cost breaks down into a few components. The circuit breaker itself runs $30 to $80, and the wiring (typically 6/3 NMD90 copper) costs $3 to $5 per foot. Labour is where most of the expense lies — an electrician in the Moncton, Fredericton, or Saint John area typically charges $75 to $110 per hour, and the job takes 3 to 6 hours depending on complexity. If your panel is in the basement directly below the kitchen, the run is short and straightforward. If your panel is on the opposite side of the house or in an attached garage, the longer wire run and additional fishing through walls can push costs toward the higher end.

The bigger concern for many New Brunswick homeowners is panel capacity. A significant number of NB homes — particularly those built in the 1960s through 1980s — still have 60-amp electrical panels. A 60-amp panel simply cannot support a modern kitchen with an electric range, dishwasher, refrigerator, and multiple small appliance circuits. If your panel needs upgrading to 100-amp or 200-amp service, that adds $1,500 to $4,000 to the project. Your electrician will assess this during the initial visit, and it is far better to discover this before your renovation is underway than after cabinets are installed and the range is sitting in your garage waiting to be connected.

Gas Range Alternative

If you are switching from electric to gas, the cost profile changes significantly. You will still need a dedicated 120-volt circuit for the igniter and controls (about $200 to $400), but you will also need a licensed gas fitter to run a gas line, which adds $500 to $1,500 depending on the distance from your existing gas supply. Gas line work requires its own permit and inspection — never let anyone connect a gas range without proper licensing.

For the permit itself, expect to pay $75 to $150 through your municipality or Regional Service Commission. Cities like Moncton and Fredericton process electrical permits within one to two weeks, while rural RSC areas may take two to four weeks. The inspection process includes a rough-in check before the walls are closed and a final inspection once everything is connected.

Before hiring an electrician, get at least three quotes — pricing in New Brunswick can vary 30 to 40 percent between contractors for identical work. Make sure each quote specifies the wire gauge, breaker amperage, and whether a panel upgrade is included. If you are planning a broader kitchen renovation, bundling the range circuit

with other electrical upgrades like adding GFCI outlets, under-cabinet lighting, or additional small appliance circuits will save money on labour compared to doing each project separately.

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Q11

Can I install dimmer switches in my NB kitchen and what do they cost?

Yes, dimmer switches work well in New Brunswick kitchens and are an affordable upgrade, typically costing $50 to $200 per switch installed, depending on the type of dimmer and whether any rewiring is needed. They are one of the most impactful small changes you can make — proper lighting control transforms a kitchen from a flat, over-lit workspace into a space that adapts to cooking, dining, and entertaining.

A basic single-pole dimmer switch costs $15 to $40 at hardware stores in Moncton, Fredericton, or Saint John, while smart dimmers with Wi-Fi or Bluetooth connectivity run $40 to $80 each. Installation labour adds $50 to $150 per switch if you hire an electrician. The critical factor is what type of lighting you are dimming. Modern LED fixtures require LED-compatible dimmers — using a standard incandescent dimmer with LED bulbs causes flickering, buzzing, and premature bulb failure. Look for dimmers labelled "CL" or "LED compatible" and check the manufacturer's compatibility list for your specific LED fixtures or bulbs.

Not every kitchen light should be on a dimmer. **Recessed ceiling lights and pendant fixtures over islands or dining areas are ideal candidates** — you want bright task lighting while cooking and softer ambient light for meals. Under-cabinet task lighting is typically better on a simple on/off switch since you want full brightness when prepping food. Range hood lights have their own controls and should not be connected to a wall dimmer.

Wiring Considerations in Older NB Homes

Many New Brunswick homes built before the 1980s have older wiring that can complicate dimmer installation. If your kitchen has knob-and-tube wiring, a dimmer switch is not safe to install without first upgrading the wiring on that circuit. Two-wire systems without a neutral conductor can also be problematic for smart dimmers, which

typically require a neutral wire to function. Your electrician can assess this quickly by pulling the existing switch plate.

If your kitchen is on a single lighting circuit — common in older NB homes — installing a dimmer affects all fixtures on that circuit simultaneously. During a renovation, it is worth having an electrician split the kitchen lighting into two or three circuits: general ceiling lights on one, island or dining pendants on another, and under-cabinet lighting on a third. This gives you independent control of each zone and costs $200 to $500 per additional circuit.

For a straightforward swap of an existing switch for a dimmer with compatible wiring and LED-compatible fixtures, this is a project many handy homeowners can tackle themselves — it involves turning off the breaker, removing the old switch, and connecting the dimmer following the manufacturer's instructions. However, if you discover aluminum wiring, knob-and-tube, or if the existing box does not have a ground wire, stop and call a licensed electrician. Any work that involves modifying circuits or adding new wiring requires a permit and inspection through your local NB municipality.

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Q12

What electrical work can I DIY during a kitchen renovation in NB?

In New Brunswick, the electrical work you can safely and legally DIY in a kitchen renovation is very limited — essentially confined to cosmetic and plug-in tasks that do not involve modifying circuits, adding wiring, or changing the electrical panel. Any work that alters the permanent wiring in your home requires a permit and inspection through your local municipality or Regional Service Commission, and the NB Building Code expects this work to be done by a licensed electrician.

The tasks you can confidently handle yourself include **replacing light fixtures on existing circuits** (swapping one ceiling fixture for another of the same type), replacing switch plates and outlet covers, installing plug-in LED strip lighting under cabinets, and changing light bulbs to LED. You can also replace a dimmer switch with another dimmer or standard switch on the same circuit, provided the wiring is in good condition and you are comfortable

working with the breaker turned off. These tasks do not require permits because you are not modifying the circuit itself.

Everything beyond those basics should be done by a licensed electrician. This includes adding or moving electrical outlets, installing new circuits for appliances, upgrading from a 60-amp to a 100-amp or 200-amp panel, adding GFCI protection to countertop outlets, wiring a new range or dishwasher circuit, installing hardwired under-cabinet lighting, and running wiring for a new island. All of these require electrical permits and both rough-in and final inspections. The permit fees are modest — typically $75 to $200 — and the inspections exist to protect your family from fire and electrocution hazards.

Why This Matters in NB's Older Homes

New Brunswick has a large stock of homes built between the 1950s and 1980s, and kitchen electrical systems from that era are often inadequate for modern use. Common issues include 60-amp panels that cannot support today's appliances, aluminum wiring that requires special connectors and techniques, knob-and-tube wiring in the oldest homes, and a lack of GFCI outlets near water sources. If you open a wall during your renovation and encounter any of these, do not attempt repairs yourself — these situations require a licensed professional who understands the specific hazards.

The NB Building Code requires a minimum of **two dedicated 20-amp small appliance circuits** for kitchen countertop outlets, plus dedicated circuits for the refrigerator, dishwasher, range, and microwave. Many older NB kitchens have just one or two circuits serving the entire kitchen, which is a code violation if you are doing any permitted renovation work. An electrician will need to bring the kitchen up to current code as part of the renovation, and this typically costs $500 to $4,000 depending on the scope.

A practical approach is to handle the cosmetic electrical work yourself — swapping out fixtures, installing plug-in under-cabinet LEDs, replacing switch plates — and hire a licensed electrician for everything that touches the permanent wiring. When getting quotes, bundle all your electrical needs into one scope of work. Having an electrician add outlets, upgrade circuits, wire the island, and install hardwired lighting in a single visit is far more cost-effective than calling them back for each item separately. Get at least three quotes from electricians in your area — rates in Moncton, Fredericton, and Saint John typically run $75 to $110 per hour, and NB labour rates are generally 15 to 20 percent lower than Ontario or BC.

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Q13

How do smart kitchen light switches work and are they worth it?

Smart kitchen light switches connect to your home Wi-Fi or a smart home hub, allowing you to control kitchen lighting from your phone, voice assistants, or automated schedules — and they are absolutely worth considering during a kitchen renovation, costing $40 to $100 per switch installed. They replace your existing wall switch and look like a slightly thicker version of a standard switch or dimmer, but they add convenience features that are especially useful in a kitchen where your hands are often wet or full.

Smart switches work by connecting to your home network through Wi-Fi, Zigbee, or Z-Wave protocols. Wi-Fi switches are the simplest — they connect directly to your router without a hub and work with apps like Google Home, Amazon Alexa, or Apple HomeKit. Zigbee and Z-Wave switches require a separate hub (like Samsung SmartThings) but use less bandwidth and have better reliability in homes with many connected devices. In a kitchen, the most practical features include **voice control** so you can turn lights on and off while cooking, **scheduling** to have lights come on automatically at sunset, **dimming** to adjust brightness for cooking versus dining, and **scene control** to set different light levels for different activities with one command.

The installation process is similar to installing a standard dimmer switch, but there is one critical requirement: **most smart switches need a neutral wire in the switch box.** Homes built after the 1980s in New Brunswick typically have neutral wires available, but older NB homes — and there are many from the 1960s and 1970s — often do not. If your switch box has only a hot wire and a load wire with no neutral, you will either need a no-neutral smart switch (fewer options and they can flicker with some LED bulbs) or have an electrician run a neutral wire to the box, which adds $100 to $300 per switch location.

Practical Value in the Kitchen

The kitchen is arguably the best room in the house for smart switches. Consider a typical evening: you walk in with groceries and say "turn on kitchen lights" without touching a switch. You are cooking and want to dim the overhead lights while keeping under-cabinet task lights bright — a quick voice command handles it. After dinner, you set a "clean up" scene that brings everything to full brightness, and when you head to bed, a single "goodnight" command turns off every light in the kitchen.

From a cost perspective, outfitting a typical NB kitchen with three to four smart switches runs $200 to $500 including installation. If your home already has neutral wires and you are comfortable with basic electrical work, you can install them yourself by swapping out existing switches. However, if you need new circuits, neutral wires run, or if your home has older wiring like aluminum or knob-and-tube, hire a licensed electrician — any circuit modifications require a permit and inspection in New Brunswick.

Smart switches are a practical upgrade that adds both daily convenience and modest resale value. If you are already renovating your kitchen and having an electrician on-site, adding smart switches at that stage is far more cost-effective than retrofitting later. The technology is mature and reliable, and the leading brands offer switches that look clean and modern on the wall.

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Q14

What is the best under-cabinet lighting for NB kitchens?

LED light strips or LED puck lights are the best under-cabinet lighting for NB kitchens, providing excellent task illumination while using minimal energy during the province's long, dark winters. The right under-cabinet lighting transforms your countertop workspace and is one of the highest-impact, lowest-cost upgrades you can make during a kitchen renovation.

LED light strips ($50 to $200 for a full kitchen) are the most popular choice because they provide continuous, even illumination across the entire length of your countertops with no dark spots. Look for strips with a **colour temperature of 3000K to 3500K**, which produces a warm white light that complements both food preparation and the overall kitchen atmosphere. Cooler temperatures like 4000K to 5000K create a clinical feel that most homeowners find too harsh for a kitchen. Brightness between 300 and 500 lumens per foot is ideal for task lighting without creating glare on countertop surfaces.

The choice between **hardwired and plug-in** systems is an important one, particularly during a renovation when walls are already open. Hardwired LED strips ($300 to $800 installed by an electrician) connect directly to your home's electrical system, can be controlled by a wall switch or dimmer, and have no visible cords or plugs. This is the professional approach and is strongly recommended during a full kitchen renovation when your electrician is already on site running new circuits. Plug-in LED strips are fine for a cosmetic update where you are not opening walls, but the visible cords running from cabinet to outlet look unfinished.

Dimming capability is worth the small premium. A dimmable LED system with a dedicated dimmer switch lets you run the under-cabinet lights at full brightness for food preparation and lower them to a soft glow for evening ambiance. This is particularly valuable during NB's long winter evenings from November through March when your kitchen lighting does heavy duty. Make sure your dimmer switch is rated for LED use, as older dimmers designed for incandescent bulbs cause LED flickering.

Installation Considerations for NB Homes

In NB's older homes with 60-amp electrical panels, adding hardwired under-cabinet lighting may be the tipping point that requires a panel upgrade if you are also adding other kitchen circuits. NB Building Code requires a minimum of two dedicated 20-amp small appliance circuits for countertop outlets, plus dedicated circuits for the refrigerator, dishwasher, range, and microwave. Your electrician should assess total circuit load before adding lighting circuits. Panel upgrades run $1,500 to $4,000 but are essential for safe operation of a modern kitchen.

For placement, mount LED strips toward the **front edge** of the upper cabinet bottom, not against the wall. This directs light onto the countertop work surface rather than creating a bright spot on the backsplash. A small light valance or trim piece ($2 to $5 per linear foot) conceals the strip from view when you are standing in the kitchen, preventing glare in your eyes.

LED puck lights ($100 to $300 for a set of 6 to 8) are an alternative that creates pools of directed light rather than continuous illumination. They work well for highlighting specific zones like a coffee station or cookbook display area, but for primary task lighting across countertops, continuous strips provide better coverage. Many NB homeowners install strip lighting under most cabinets and add puck lights in accent areas for a layered effect. Simple plug-in LED strips are a viable DIY project, but hardwired installations require an electrician and an electrical permit in New Brunswick. New Brunswick Kitchens can connect you with qualified kitchen renovators and electricians for your project.

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Q15

How do I plan kitchen lighting zones for task cooking and ambiance?

A well-lit New Brunswick kitchen uses three distinct lighting layers — task, ambient, and accent — each on its own switch or dimmer so you can adjust the mood from bright cooking workspace to relaxed evening atmosphere. Planning these zones before your renovation starts is critical because adding circuits and switch locations after drywall is closed costs significantly more.

Task lighting is the most important layer and the one most kitchens get wrong. You need bright, shadow-free light directly on your work surfaces — countertops where you chop vegetables, the stovetop, and the sink. **Under-cabinet lighting** is the gold standard for countertop task lighting. LED strips or puck lights mounted to the bottom of your wall cabinets cast light directly downward onto the countertop without creating shadows from your body. Plan for 250-400 lumens per linear foot of counter space in a colour temperature of 3000K-3500K (warm white) — this provides accurate colour rendering for food preparation without the harsh feel of cool white. For the sink, a recessed ceiling fixture directly overhead ensures you can see clearly while washing dishes. Above the cooktop, your range hood should include built-in lighting (most quality hoods do).

Ambient lighting provides the overall room illumination. Recessed pot lights (4-inch or 6-inch) on a regular grid pattern are the most common choice in NB kitchens, spaced about 4-5 feet apart and 2-3 feet from the walls. A typical 10x12-foot kitchen needs 4-6 recessed fixtures. If you have an island or peninsula, pendant lights serve double duty as ambient and task lighting — hang them 30-36 inches above the countertop surface, spaced 24-30 inches apart. For a standard 6-foot island, two pendants work well; for an 8-foot island, consider three.

Accent and Control

Accent lighting is the layer most homeowners skip, but it's what separates a good kitchen from a great one. In-cabinet lighting with glass-front doors creates a beautiful display effect. Toe-kick LED strips under base cabinets provide a soft nightlight glow that's practical for late-night trips to the kitchen during NB's long winter evenings. Above-cabinet lighting washes the ceiling and makes the room feel taller — particularly useful in older NB homes with standard 8-foot ceilings.

The key to making all three layers work together is **separate switches and dimmers**. Wire your under-cabinet lights, overhead fixtures, pendant lights, and accent lights on independent circuits so you can run any combination. Dimmer switches on the ambient and accent layers give you full control — bright for cooking, dim for dinner parties. This electrical work requires a permit and inspection in New Brunswick, so plan it with your electrician during the rough-in phase, before walls are closed.

Keep in mind that NB Building Code requires **GFCI-protected outlets** within 1.5 metres of any sink and a minimum of two 20-amp small appliance circuits for countertop receptacles. Your lighting circuits are separate from these, but your electrician should plan the entire kitchen electrical package together. In older NB homes with 60-amp panels, a

modern lighting plan combined with appliance circuits will almost certainly require a panel upgrade to 100-amp or 200-amp service ($1,500-$4,000).

Budget $500-$2,000 for lighting fixtures and $500-$1,500 for the electrical rough-in work depending on how many circuits you're adding. Investing in good lighting transforms how your kitchen looks and functions — it's one of the highest-value upgrades per dollar spent.

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Q16

What is the ideal kitchen ceiling height for pendant lights?

Pendant lights should hang 28 to 34 inches above your kitchen countertop or 30 to 36 inches above a kitchen island, with the bottom of the pendant at least 6 feet 6 inches above the floor to prevent head bumps. Getting this height right is essential for both function and aesthetics, and many NB homeowners with standard 8-foot ceilings need to choose their pendants carefully to avoid a cramped look.

For **standard 8-foot ceilings** — the most common ceiling height in New Brunswick homes built from the 1960s through the 1990s — you have less room to work with. A typical island is 36 inches high, leaving 60 inches of space between the island surface and the ceiling. Hanging pendants 30 inches above the island means the bottom of the fixture sits at 66 inches (5 feet 6 inches) off the floor, which works for shorter pendants but can feel low for taller household members. The solution is to choose compact pendants no more than 10-12 inches tall and hang them at 28-30 inches above the island surface. Mini pendants (6-8 inches in diameter) work particularly well in 8-foot ceiling kitchens.

For **9-foot ceilings** — common in newer NB construction and some renovated heritage homes in Fredericton and Saint John — you have much more flexibility. You can use larger statement pendants (12-18 inches tall) hung at 32-36 inches above the island without any clearance issues. This extra ceiling height is where pendants truly shine as a design feature.

Practical Installation Considerations

Over an island, the standard approach is two to three pendants spaced evenly along the island's length. For a 6-foot island, two pendants spaced 30 inches apart work well. For an 8-foot island, three pendants spaced 24-28 inches apart provide balanced light coverage. Each pendant should sit at least 6 inches in from the edge of the island to avoid visual clutter.

Over a kitchen table or eat-in area, hang the pendant or chandelier 30-34 inches above the table surface. This puts the light close enough to create an intimate dining atmosphere without blocking sightlines across the table.

Electrical requirements are important to plan ahead. If you are adding pendant lights where none existed before — common in NB kitchen renovations where older homes had a single ceiling fixture — you will need new electrical boxes installed in the ceiling. This requires running wire, cutting into the ceiling, and possibly reinforcing the junction box for heavier fixtures. Any new electrical work requires a permit and inspection in New Brunswick, whether you are in Moncton, Saint John, or a rural area served by a Regional Service Commission. Budget $200-$500 per pendant location for the electrical rough-in if new wiring is needed.

For older NB homes with plaster-and-lath ceilings, running new wiring can be more labour-intensive and costly than in drywall construction. Discuss ceiling conditions with your electrician during the quoting phase. A dimmer switch ($50-$100 installed) is a worthwhile addition — it lets you adjust pendant brightness from task lighting during meal prep to ambient mood lighting during dinner.

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Q17

What smart home features can I add to my NB kitchen renovation?

Smart home features in a kitchen renovation range from simple plug-and-play additions like smart speakers to hardwired systems like automated lighting and smart appliances, with most NB homeowners spending $500 to $5,000 on smart kitchen upgrades. The best time to add smart features is during a renovation when walls are open and new circuits are being run — retrofitting later is more expensive and disruptive.

Smart lighting is the most popular and practical starting point. Hardwired smart switches (brands like Lutron Caseta or Leviton Decora) replace standard light switches and let you control kitchen lighting from your phone, set schedules, or use voice commands through Alexa or Google Home. Under-cabinet LED strips with smart controllers allow you to adjust brightness and colour temperature — warmer light for evenings, cooler light for food prep. During your renovation, have your electrician wire for separate lighting zones: task lighting over counters, ambient lighting for dining, and accent lighting for display areas. Budget $300 to $1,500 for a full smart lighting setup.

Smart appliances are increasingly available in NB, though delivery lead times are longer than in larger Canadian markets — order four to eight weeks ahead. Wi-Fi-enabled refrigerators can alert you when the door is left open, track food expiry, and display recipes. Smart ovens allow remote preheating and temperature monitoring from your phone. Smart dishwashers send notifications when the cycle is complete. While these appliances cost 15 to 30 percent more than standard models, the convenience factor is significant. A mid-range smart appliance package runs $6,000 to $12,000 in New Brunswick.

Touchless faucets with motion sensors are both a smart and hygienic upgrade, particularly useful when your hands are covered in flour or raw meat. Models from Moen and Delta with MotionSense technology run $400 to $800 installed. Make sure your plumber knows you are installing a touchless model, as some require a nearby electrical outlet or battery compartment space under the sink.

Electrical Planning for Smart Features

Smart kitchens need robust electrical infrastructure. If you are renovating an older NB home with a 60-amp panel, you will almost certainly need a panel upgrade to support smart appliances, multiple circuits, and USB charging outlets. Have your electrician add **USB-C outlets** at key locations — beside the coffee station, near the island seating area, and at a designated charging station. These run about $30 to $60 per outlet installed during a renovation.

A strong **Wi-Fi signal** is essential for smart kitchen features. If your router is far from the kitchen, consider having your electrician run an Ethernet cable to the kitchen during renovation for a Wi-Fi access point or mesh node. Nothing is more frustrating than smart devices that drop connection.

Other smart additions worth considering include a **smart water leak sensor** under the sink and near the dishwasher ($30 to $50 each — invaluable in NB's older homes where plumbing surprises happen), a **smart smoke and carbon monoxide detector** if you have a gas range, and a **smart thermostat** if your renovation includes HVAC work.

Plan your smart features before the renovation begins so your electrician can run the necessary wiring while walls are open. Adding smart wiring during a renovation costs a fraction of retrofitting it afterward. Talk to your kitchen renovator about smart feature integration — find one through New Brunswick Kitchens for a free consultation.

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Q18

How much does it cost to install pot lights in a NB kitchen ceiling?

Installing pot lights (recessed lighting) in a New Brunswick kitchen typically costs $150 to $300 per light installed, with most kitchens requiring 4 to 8 fixtures for a total project cost of $800 to $2,400. This includes the LED pot light fixtures, wiring, ceiling cut-outs, a dimmer switch, and labour from a licensed electrician.

The per-light cost breaks down into fixtures and labour. LED pot lights themselves cost $20 to $60 each depending on brand and features such as colour temperature adjustment, IC-rated housing for insulated ceilings, and ultra-thin or canless designs. Labour accounts for the bulk of the cost at $100 to $200 per light, covering ceiling cut-outs, running new wiring, and connecting to your electrical panel or existing circuit. The first light in a run is the most expensive because the electrician must establish the circuit and route wire from the switch location. Each additional light on the same run costs less because the wire simply extends from one fixture to the next.

Factors That Affect Cost in NB

Ceiling access is the biggest cost variable. If you have an accessible attic above your kitchen, the electrician can run wire and position junction boxes from above without cutting into finished ceilings, which keeps costs toward the lower end. If your kitchen ceiling is below a second floor with no attic access, the electrician must fish wires through closed joist bays, which is more time-consuming and pushes costs toward $250 to $300 per light. In many older NB homes, especially bungalows and split-levels built in the 1960s through 1980s, there is often attic access above the kitchen, which helps.

Insulation is another consideration. NB building code requires IC-rated (insulation contact) pot light housings when the fixture will be in contact with ceiling insulation. Non-IC-rated fixtures must have insulation pulled back 3 inches on all sides, which reduces your ceiling's thermal performance and is a particular concern in NB's cold winters. Always specify IC-rated and airtight pot lights to prevent heat loss and moisture migration into the attic.

Your existing electrical panel matters too. Pot lights draw minimal power individually (each LED fixture uses only 8 to 15 watts), but the circuit they connect to must have capacity. In older NB homes with 60-amp electrical panels, adding a new lighting circuit may require a panel upgrade to 100-amp or 200-amp, which adds $1,500 to $4,000 to the project. A licensed electrician will assess your panel capacity before starting.

For layout, the general rule is spacing pot lights 4 to 5 feet apart and 2 to 3 feet from walls. A typical 10-by-12-foot NB kitchen uses 6 pot lights for even ambient coverage. Adding a dimmer switch ($30 to $80 for a quality LED-compatible dimmer) gives you control over brightness and ambiance. Make sure the dimmer is rated for LED fixtures, as older dimmers designed for incandescent bulbs cause LED pot lights to flicker or buzz.

All electrical work in New Brunswick requires a permit and inspection through your local municipality. Permit fees run $75 to $150 for a lighting project. A licensed electrician handles the permit application and schedules the inspection as part of the job. This is not a DIY project, as any circuit work in NB legally requires a licensed electrician and inspection.

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Q19

What are the electrical requirements for a kitchen island in New Brunswick?

A kitchen island in New Brunswick requires at least one electrical outlet, and any outlet within 1.5 metres of a sink must have GFCI protection under the NB Building Code. Beyond the code minimum, most modern kitchen islands benefit from two to four outlets, a dedicated circuit for built-in appliances, and consideration for under-counter lighting and pop-up or floor-fed power connections.

The NB Building Code, which follows the Canadian Electrical Code, requires that kitchen islands with a long dimension of 600 mm or greater and a short dimension of 300 mm or greater must have at least one receptacle outlet. This outlet must be supplied by one of the two required 20-amp small appliance branch circuits that serve the kitchen countertop. In practice, most electricians in Moncton, Fredericton, and Saint John recommend installing at least two outlets on a kitchen island, placed on opposite ends, so you have convenient power access regardless of where you are working.

If your island includes a sink, all outlets within 1.5 metres of the sink edge must be GFCI-protected. This is a non-negotiable code requirement. If your island includes a dishwasher, it needs its own dedicated 20-amp circuit separate from the countertop small appliance circuits. A built-in microwave drawer or warming drawer in the island also requires a dedicated circuit. Each dedicated appliance circuit adds $200 to $500 to the electrical budget depending on the distance from your panel.

Getting Power to the Island

The biggest challenge with island electrical is routing the wiring. Since the island sits in the middle of the floor away from walls, power must come from somewhere. The most common approaches are running wire through the floor from the basement or crawlspace below, or running it through the ceiling and down through the wall if the island is against a knee wall or partial wall.

In many older NB homes with unfinished basements, running wire through the floor is straightforward. The electrician drills up through the subfloor into the island cabinet cavity and routes the wire through the floor joists below to the electrical panel. If your kitchen is on a concrete slab, which is less common in NB but found in some split-level homes and additions, the electrician must either cut a channel in the concrete (expensive, $500 to $1,000 for the concrete work alone) or run conduit across the ceiling and down a support post.

For outlet placement, pop-up outlets that sit flush with the countertop when not in use are increasingly popular in NB kitchen renovations. They cost $80 to $200 per unit plus installation and keep the island's appearance clean. Alternatively, outlets can be installed on the side panels of the island below the countertop overhang, which keeps them accessible but less visible.

Budget $500 to $1,500 for island electrical work in a typical NB kitchen renovation, depending on the number of outlets, dedicated circuits, and routing complexity. If your home has a 60-amp electrical panel, common in NB homes built before the 1980s, adding island circuits may push your panel beyond capacity, requiring an upgrade to 100-amp or 200-amp at $1,500 to $4,000. All island electrical work requires a permit and inspection through your local municipality or Regional Service Commission. A licensed electrician should handle this work, as incorrect island wiring is a common inspection failure point.

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