

NEW BRUNSWICK ELECTRICAL

Costs & Pricing

Electrician rates, project costs, and estimates in
New Brunswick

15 Expert Answers from Electric IQ

newbrunswickelectrical.com/construction-brain

Table of Contents

1. How much does it cost to wire a new construction home in New Brunswick?
2. What is the cost to upgrade from 100 amp to 200 amp electrical service in New Brunswick?
3. How much does it cost to run electric baseboard heaters per month in New Brunswick?
4. How much does it cost to run electric baseboard heaters in New Brunswick?
5. What electrical upgrades add the most value to a home in New Brunswick?
6. How much does it cost to wire a new garage or workshop in New Brunswick?
7. How much electricity does a hot tub use in New Brunswick and what circuit does it need?
8. What electrical upgrades add the most resale value to a home in New Brunswick?
9. How much does it cost to install recessed pot lights throughout my New Brunswick home?
10. How much does NB Power charge for electricity and how does it affect my electrical renovation budget?
11. How much does a whole home rewire cost for a 1950s bungalow in Saint John?
12. How much does an electrician charge per hour in New Brunswick in 2025?
13. How much does a 200 amp panel upgrade cost in Moncton?
14. How much does it cost to replace knob and tube wiring in a Saint John heritage home?
15. How much does it cost to run electrical to a detached garage or workshop in rural New Brunswick?

How much does it cost to wire a new construction home in New Brunswick?

Electrical wiring for a new construction home in New Brunswick typically costs \$12,000-\$25,000, or roughly \$6-\$12 per square foot — depending on the home's size, complexity, and your fixture/feature selections.

Cost breakdown by home size:

Home Size	Basic Wiring	Mid-Range	High-End
1,200 sq ft	\$8,000-\$12,000	\$12,000-\$16,000	\$16,000-\$22,000
1,800 sq ft	\$12,000-\$16,000	\$16,000-\$22,000	\$22,000-\$30,000
2,500 sq ft	\$16,000-\$22,000	\$22,000-\$28,000	\$28,000-\$40,000
3,000+ sq ft	\$20,000-\$28,000	\$28,000-\$35,000	\$35,000-\$50,000+

What's included in these costs:

Basic package:

- 200-amp panel with main breaker
- Standard number of outlets per CEC requirements
- Basic light fixture boxes (you supply fixtures)
- Smoke and CO detector wiring
- Phone/cable/ethernet rough-in
- Bathroom exhaust fan circuits
- Kitchen appliance circuits (stove, dishwasher, fridge, microwave)
- Laundry circuits (dryer, washer)
- Outdoor outlets (minimum code requirement)
- TSANB permit and inspections

Mid-range additions:

- Additional outlets beyond code minimum
- Recessed pot light circuits throughout
- Dimmer switches in living areas
- Under-cabinet kitchen lighting
- Garage sub-panel with multiple circuits
- Outdoor lighting circuits
- Smart thermostat wiring for each heating zone

- USB outlets in key locations
- Structured wiring panel (ethernet to each room)

High-end additions:

- Whole-home automation pre-wire
- EV charger circuit
- Generator transfer switch
- In-floor heating circuits
- Landscape lighting circuits
- Home theater/audio pre-wire
- Security system wiring
- Whole-house surge protection
- Smart lighting control system

Factors that affect NB new construction electrical costs:

- **Electric baseboard heat:** Very common in NB new builds. Each room needs a dedicated 240V circuit and thermostat — adds \$200-\$400 per zone. A 10-zone home adds \$2,000-\$4,000 to the electrical budget
- **Heat pump integration:** Increasingly popular in NB. Requires a dedicated 240V circuit, indoor and outdoor disconnect, and control wiring. Budget \$500-\$800 for electrical
- **Well pump circuit:** Rural NB homes on well water need a dedicated 240V circuit to the well — \$400-\$800 depending on distance
- **Septic system:** Requires a dedicated circuit if using an aerobic treatment unit — \$300-\$500
- **NB Power service connection:** NB Power installs the meter and service to your meter box at no charge (for standard residential service). You're responsible for everything from the meter to the panel and throughout the house

TSANB inspection schedule: New construction requires multiple inspections:

- Rough-in inspection (before drywall)
- Final inspection (after all fixtures installed)
- Each inspection: \$50-\$150 as part of permit fees

Tips for controlling costs:

- Finalize your floor plan and fixture locations before the electrician starts — changes during rough-in are expensive
- Choose your light fixtures early so the electrician installs the right boxes and supports
- Run all low-voltage wiring (ethernet, coax, speaker) during rough-in — it costs almost nothing extra when walls are open
- Get 3 quotes from licensed electricians and compare line-by-line

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Q2

What is the cost to upgrade from 100 amp to 200 amp electrical service in New Brunswick?

Upgrading from 100-amp to 200-amp electrical service is one of the most common major electrical projects in New Brunswick. Many homes built before the 1990s — particularly in Moncton, Saint John, Fredericton, and older communities throughout the province — were originally wired with 100-amp service that simply can't keep up with modern electrical demands.

Why Upgrade?

A 100-amp service was adequate when homes had fewer electrical devices, smaller kitchens, and often relied on oil or wood heat. Today's New Brunswick homes commonly need capacity for:

- Electric baseboard heat (extremely common in NB — can consume 30–50 amps alone)
- Heat pump installation (NB Power actively promotes these with rebates)
- Level 2 EV charger (40 amps)

- Modern kitchen appliances (electric range, dishwasher, microwave on dedicated circuits)
- Home office equipment
- Hot tub (40–50 amps)
- Workshop tools

A single Level 2 EV charger plus a heat pump can push a 100-amp service past its safe capacity. With electric baseboard heat already drawing heavily, there's simply no room.

Cost Breakdown

Component	Cost Range	Notes
New 200-amp panel	\$400–\$800	Square D, Eaton, or Siemens
New 200-amp meter base	\$200–\$400	Often required — old 100A base won't accept 200A
Service entrance cable (SE)	\$300–\$600	From weatherhead to meter to panel
New weatherhead and mast	\$100–\$300	If existing mast is undersized
Ground rod and bonding	\$100–\$200	Must meet current CEC requirements
AFCI breakers (bedrooms)	\$150–\$400	Required by current CEC for bedroom circuits
Electrician labour	\$1,200–\$2,500	Typically 1–2 full days
TSANB permit and inspection	\$75–\$200	Mandatory
NB Power disconnect/reconnect	\$0–\$500	Varies; sometimes free, sometimes a service charge
Total	\$2,500–\$5,500	Most jobs fall in the \$3,000–\$4,500 range

What Affects the Price

Panel location: If your panel is in the basement directly below the meter (the most common layout in NB homes), the service entrance cable run is short and straightforward. If the panel is on the opposite side of the house from the meter, or in an awkward location, cable routing adds cost.

Meter base condition: Many 100-amp installations in NB use older meter bases that aren't compatible with 200-amp service. Replacing the meter base adds \$200–\$400 in parts and requires NB Power to pull and reseal the meter.

Service mast and weatherhead: The overhead service entrance — the metal pipe (mast) and curved fitting (weatherhead) where NB Power's lines connect to your home — may need upsizing. A 100-amp service typically uses 1.5-inch conduit; 200-amp requires 2-inch or larger. If the mast is rusted, bent, or undersized, it must be replaced. Cost: \$100–\$300.

Number of circuits: A straightforward panel swap reconnects existing circuits to new breakers. But many homeowners use the upgrade as an opportunity to add circuits (dedicated EV charger circuit, workshop circuit, etc.), which increases the scope and cost. Each additional circuit adds roughly **\$200–\$400**.

Grounding requirements: Current CEC standards often require upgraded grounding compared to what was originally installed. This may include new ground rods, bonding of water pipes, and a properly sized grounding electrode conductor. If your existing grounding is inadequate (common in pre-1980s NB homes), bringing it to code adds **\$100–\$300**.

Location in NB: Electricians in urban centres (Moncton, Fredericton, Saint John) typically charge **\$85–\$120/hour**. In rural areas, hourly rates are similar but travel charges of **\$50–\$200** may apply. The total project cost in Campbellton or Edmundston might be \$200–\$500 more than in Moncton simply due to travel.

The Process Step by Step

- **Consultation and quote** — Electrician visits, assesses existing service, performs a load calculation, and provides a written quote. Many NB electricians offer free quotes for panel upgrades.
- **TSANB permit** — Your electrician applies for the electrical permit. Processing is typically quick — a few business days.
- **NB Power coordination** — NB Power must disconnect the service drop from your weatherhead before work begins and reconnect after. This requires scheduling and may take **1–3 weeks** to arrange. This is often the longest wait in the process.
- **Day of work (typically 1 day):**
 - NB Power disconnects service (you'll be without power) - Electrician removes old panel, meter base, and service entrance cable - New meter base, service entrance cable, panel, and weatherhead are installed - All existing circuits are reconnected to new breakers - Grounding is upgraded as needed - AFCI breakers installed on bedroom circuits (current CEC requirement)
- **TSANB inspection** — Requested after work is complete. Inspector verifies compliance with CEC. Usually scheduled within **5–10 business days**.
- **NB Power reconnection** — After TSANB approval, NB Power reconnects the service drop and installs the meter in the new base. Power is restored.

Total timeline: From initial call to power restored, expect **3–6 weeks** — mostly due to scheduling with NB Power and TSANB, not the actual work.

What You Get With 200-Amp Service

A 200-amp panel provides **48,000 watts** of total capacity at 240V — roughly double the 24,000 watts of a 100-amp service. This provides ample room for:

- All existing household circuits
- Electric baseboard heat for the entire home
- Heat pump (even two zones)
- Level 2 EV charger
- Electric range, dryer, water heater
- Workshop sub-panel
- Future additions without running out of capacity

Most 200-amp panels have **40 circuit spaces** (versus 20–24 in typical 100-amp panels), giving you plenty of room for additional circuits.

Can You Skip Straight to 400 Amps?

400-amp residential service is rare and expensive in New Brunswick — typically **\$8,000–\$15,000** — and involves either a single 400-amp panel (uncommon) or dual 200-amp panels. It's only justified for very large homes (3,500+ sq ft) with extensive all-electric systems, multiple EV chargers, large workshops, or heated outbuildings. For 95% of NB homeowners, 200 amps is more than sufficient for current and foreseeable future needs.

Financing and Rebates

Check current NB Power programs — they have offered rebates for electrical upgrades that support energy-efficient equipment installation (like heat pumps). The federal **Canada Greener Homes Grant** program has also covered portions of electrical upgrades when they're part of an energy efficiency improvement package. Some NB electricians offer financing through third-party providers for panel upgrades — ask when getting quotes.

Red Flags When Getting Quotes

- **Quote significantly below \$2,500:** Cutting corners somewhere — possibly reusing an inadequate meter base, skipping AFCI breakers, or not planning to pull a TSANB permit
- **No mention of TSANB permit:** This work absolutely requires a permit. Any electrician who doesn't include it is either planning to skip it (illegal) or hasn't thought through the scope
- **"We don't need to involve NB Power":** NB Power **MUST** disconnect and reconnect the service. There is no safe workaround
- **No written quote:** Always get the scope and price in writing before work begins

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Q3

How much does it cost to run electric baseboard heaters per month in New Brunswick?

Electric baseboard heating costs in New Brunswick are directly tied to NB Power's electricity rates, your home's insulation, the size of your living space, and how cold the Maritime winter gets. Here's a realistic breakdown of what you can expect.

NB Power Electricity Rates

As of the latest rate schedule, NB Power charges approximately **\$0.1131 per kWh** for residential customers (the first block of energy usage). There's a second block rate that kicks in at higher consumption levels at roughly **\$0.1474 per kWh**. Homes heated with electric baseboard almost always hit the second block during winter months, so budgeting at the higher rate is more realistic for heating cost calculations.

NB Power also charges a **daily service charge** (around \$0.70/day or roughly \$21/month) regardless of consumption, plus HST at 15% — New Brunswick's combined provincial and federal sales tax.

Monthly Cost Estimates by Home Size

These estimates assume average insulation, thermostat set to 20°C (68°F), and typical Maritime winter temperatures:

Home Size	Heating Load	Monthly Cost (Dec–Feb)	Monthly Cost (Oct/Nov, Mar/Apr)
Apartment/Condo (700 sq ft)	4,000–5,000W	\$250–\$350	\$120–\$180
Small house (1,000 sq ft)	6,000–8,000W	\$350–\$500	\$170–\$250
Medium house (1,500 sq ft)	9,000–12,000W	\$450–\$650	\$220–\$350
Large house (2,000+ sq ft)	12,000–16,000W	\$600–\$900	

\$300–\$450 |

These are heating costs only — add your base electrical usage (lights, appliances, hot water if electric) of roughly **\$80–\$150/month** on top.

How the Calculation Works

A **1,500-watt baseboard heater** running continuously for one hour uses 1.5 kWh. In the coldest months (January and February), a heater in an average-insulated room might run **60–80% of the time** — roughly 14–19 hours per day.

Example calculation for one 1,500W heater:

- $1.5 \text{ kW} \times 16 \text{ hours/day} \times 31 \text{ days} = \mathbf{744 \text{ kWh/month}}$
- $744 \text{ kWh} \times \$0.1474/\text{kWh} = \mathbf{\$109.67/month}$ (plus HST)
- With 15% HST: **\$126.12/month** for ONE heater

A medium-sized home with 6–8 baseboard heaters can easily accumulate **3,000–5,000 kWh/month** in heating electricity alone during peak winter.

Why New Brunswick Costs Are Higher Than Average

Several factors make electric baseboard heating particularly expensive in New Brunswick:

Climate: The Maritime climate means a long heating season — typically **October through April** (7 months). While our winters aren't as cold as Northern Ontario or the Prairies on average, the combination of damp ocean air and persistent wind chill means heaters work harder than raw temperature readings suggest. Moncton averages about **4,600 heating degree days annually**, Saint John about 4,500, and Fredericton about 4,800 (being inland and slightly colder).

Older housing stock: Many homes in Saint John, Fredericton's older neighbourhoods, Bathurst, and smaller communities were built in the 1960s–1980s with insulation standards well below today's requirements. Poor insulation means heat escapes faster, and baseboard heaters run longer to compensate. Upgrading attic insulation from R-20 to R-60 (current NB building code minimum) can reduce heating costs by **15–25%**.

Electricity rates: NB Power's residential rates are mid-range for Canadian provinces but significantly more expensive than heating with natural gas (which isn't widely available in many New Brunswick communities). Only parts of the Saint John to Moncton corridor and some Fredericton areas have natural gas service through Liberty Utilities.

Ways to Reduce Your Baseboard Heating Costs

Heat pumps: A ductless mini-split heat pump is the single most effective upgrade for New Brunswick homes with baseboard heat. Modern cold-climate heat pumps (like Mitsubishi Hyper-Heat or Fujitsu XLTH) operate efficiently down to **-25°C to -30°C** and can reduce heating costs by **40–60%**. NB Power and the federal government offer rebates that can cover **\$2,000–\$5,000** of the installation cost. A typical single-zone installation runs **\$3,500–\$5,500** before rebates.

Programmable/smart thermostats: Replacing manual baseboard thermostats with programmable or smart line-voltage thermostats (Mysa or Sinopé — both Canadian brands designed for baseboard heat) lets you set schedules to lower temperatures when sleeping or away. Savings: **10–15%** on heating costs.

Insulation upgrades: Adding blown-in cellulose to attic and wall cavities is one of the highest-ROI improvements. Cost: **\$1,500–\$4,000** for a typical home. NB Power's Total Home Energy Savings Program may offer rebates.

Window upgrades: Replacing single-pane windows with double or triple-pane Energy Star certified units reduces heat loss dramatically. Especially impactful in older homes in Campbellton, Edmundston, and other northern New Brunswick communities where winter temperatures regularly drop below -20°C.

Zone heating: Use thermostats to lower temperatures in unused rooms. Closing a bedroom to 15°C (59°F) during the day while keeping living areas at 20°C can save **\$30–\$60/month** across the heating season.

Realistic Annual Heating Cost

For a **1,500 sq ft home** with electric baseboard heat, average insulation, and thermostats set to 20°C, expect total annual heating electricity costs of approximately **\$2,500–\$4,000** — spread across the October-to-April heating season. This makes electric baseboard one of the most expensive heating methods available, which is why NB Power actively encourages heat pump adoption as a supplemental or primary heat source.

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How much does it cost to run electric baseboard heaters in New Brunswick?

Electric Baseboard Heater Operating Costs in New Brunswick

Electric baseboard heating is the most common heating system in New Brunswick — and also the most expensive to operate. Understanding the actual costs helps you budget and identify savings opportunities.

How Baseboard Heaters Work

Electric baseboard heaters are 100% efficient at converting electricity to heat — every watt of electricity becomes a watt of heat. The problem isn't efficiency, it's the cost of electricity compared to other fuel sources. At NB Power's residential rate of ~\$0.12/kWh (first block) to ~\$0.14/kWh (second block), electric resistance heating is 3–4 times more expensive than a heat pump per unit of heat delivered.

Cost Per Heater Per Month

Baseboard heaters are rated in watts. Common residential sizes:

Heater Size	Room Size	Monthly Cost (winter, 12 hrs/day)	Monthly Cost (extreme cold, 18+ hrs/day)
500W (1,700 BTU)	Small bathroom	\$22–\$30	\$33–\$45
750W (2,560 BTU)	Small bedroom	\$33–\$45	\$50–\$68
1,000W (3,410 BTU)	Medium bedroom	\$44–\$60	\$66–\$90
1,500W (5,120 BTU)	Living room	\$66–\$90	\$99–\$135
2,000W (6,825 BTU)	Large room	\$88–\$120	\$132–\$180
2,500W (8,530 BTU)	Open concept area	\$110–\$150	\$165–\$225

These assume NB Power's blended rate of approximately \$0.12–\$0.14/kWh.

Whole-House Heating Costs

A typical 1,500 sq ft New Brunswick home with baseboard heating has 8–12 heaters totalling 10,000–15,000 watts of installed capacity.

Month	Typical kWh (heating only)	Cost (heating only)
October	500–800	\$60–\$110
November	1,200–1,800	\$145–\$250
December	2,000–3,000	\$240–\$415
January	2,500–3,500	\$300–\$485
February	2,200–3,200	\$265–\$445
March	1,500–2,200	\$180–\$305
April	600–1,000	\$72–\$140
Annual heating total	10,500–15,500 kWh	\$1,260–\$2,150

Add your non-heating electricity use (~600–800 kWh/month for lights, appliances, hot water) and total annual electricity bills for a baseboard-heated NB home typically run **\$3,000–\$5,000/year**.

Why Bills Vary So Much Between Homes

Insulation quality is the biggest factor. A well-insulated home (R-60 attic, R-20 walls, double or triple-pane windows) might use 10,000 kWh for heating. A poorly insulated home of the same size (R-12 attic, R-8 walls, single-pane windows) might use 20,000+ kWh — double the cost for the same indoor temperature.

Thermostat habits matter enormously. Each degree above 20°C costs roughly 3–5% more. A home set at 23°C uses 10–15% more energy than one at 20°C — easily \$200–\$400 extra per winter.

Window quality and air sealing are the second biggest factor after insulation. Older NB homes with original windows from the 1960s–1980s lose heat rapidly through single-pane glass and drafty frames.

Home orientation and wind exposure affect heating load. Homes exposed to prevailing northwest winds (common in NB) or on hilltops lose more heat than sheltered valley homes.

Reducing Baseboard Heating Costs

1. Install a heat pump (\$3,500–\$7,000 after rebates) A mini-split heat pump delivers 2.5–3.5 units of heat per unit of electricity consumed. This means a heat pump can heat the same space for **60–70% less** than baseboard heaters. At -15°C, a modern cold-climate heat pump still delivers 2x efficiency. Even at -25°C, many units continue operating (though at reduced efficiency).

Savings: \$800–\$1,500/year on a typical NB home. Payback: 3–6 years after NB Power rebates.

2. Upgrade insulation (\$1,500–\$5,000) Adding attic insulation from R-20 to R-60 reduces heating costs by 15–25%. Air sealing the building envelope (gaps around windows, doors, plumbing/electrical penetrations, and sill plates) can save another 10–20%.

3. Smart thermostats (\$100–\$250 per zone) Mysa or Sinopé smart baseboard thermostats let you program schedules, reduce temperature when away, and set different temperatures by room. Dropping unused rooms to 15°C while maintaining living areas at 20°C saves 10–20%.

4. Window upgrades (\$300–\$800 per window) Replacing single-pane with double-pane low-E windows reduces heat loss through glass by 50–70%. Storm windows (\$100–\$200 per window) are a cheaper alternative.

5. Thermal curtains (\$30–\$80 per window) Heavy insulated curtains closed at night reduce window heat loss by 25–40%. The cheapest improvement with the fastest payback.

NB Power Programs

NB Power's **Total Home Energy Savings Program** offers rebates for:

- Heat pump installations

- Insulation upgrades
- Air sealing
- EnerGuide home energy assessments

Check NB Power's website for current rebate amounts and eligibility — programs change periodically. An EnerGuide assessment (\$100–\$300, often partially rebated) identifies your biggest energy losses and qualifies you for rebates.

The Long-Term View

Electricity rates in NB have risen most years. Planning for rates 20–30% higher in 5–10 years is prudent. Investing in efficiency now (heat pump, insulation, smart thermostats) reduces your exposure to future rate increases. A heat pump plus insulation upgrade can cut your heating portion from \$2,000/year to \$600–\$800/year — savings that grow as rates rise.

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Q5

What electrical upgrades add the most value to a home in New Brunswick?

Electrical Upgrades That Add Value to Your New Brunswick Home

Whether you're planning to sell or simply want to invest wisely in your home, some electrical upgrades offer much better return on investment than others. Here's what actually moves the needle for home value in NB's real estate market.

Tier 1: High-Impact, High-Return Upgrades

1. Panel upgrade (60A/100A ? 200A) ROI: 60–80% of cost recovered at sale, plus eliminates buyer negotiation deductions.

A 200-amp panel is the modern standard. Homes with 60A or 100A panels — common in NB homes built before 1980 — face pushback from buyers, home inspectors, and insurance companies. Buyers budget \$3,000–\$5,000 to upgrade the panel and reduce their offer accordingly. Doing it yourself means you control the cost and quality.

Cost: \$2,500–\$4,500 | Value added: \$2,000–\$4,000 (in avoided buyer deductions)

2. Replacing Federal Pacific / Stab-Lok panels ROI: 75–100% — this is more about removing a value penalty than adding value.

An FPE panel is an automatic red flag on every home inspection. Many NB buyers will either demand replacement as a condition of sale or walk away entirely. Some insurance companies won't insure the home. Replacing it eliminates the problem completely.

Cost: \$3,000–\$5,000 | Value protected: \$3,000–\$5,000+

3. EV charger installation (Level 2) ROI: 50–75% — increasingly important as EV adoption grows.

A pre-wired 240V, 50A circuit in the garage with a Level 2 charger installed is a selling point that differentiates your home. In Moncton, Fredericton, and Saint John, EV ownership is growing rapidly, and buyers with EVs specifically look for homes with charger infrastructure.

Cost: \$1,500–\$3,500 | Value added: \$1,000–\$2,500

4. Rewiring knob-and-tube to modern NMD90 ROI: 70–100% — removes insurance and safety barriers.

Like FPE panels, knob-and-tube wiring triggers insurance issues, buyer concerns, and inspection red flags. A full rewire turns a major liability into a selling point ("fully rewired with modern copper wiring").

Cost: \$8,000–\$20,000 | Value added: \$6,000–\$15,000+

Tier 2: Good Return Upgrades

5. Recessed LED lighting in kitchen and main living areas ROI: 50–70%

Modern pot lights transform how a home feels and photographs. In NB's real estate market, listing photos with bright, well-lit interiors generate more interest. Kitchen and living room lighting upgrades are noticed immediately by buyers.

Cost: \$1,500–\$4,000 | Value added: \$1,000–\$2,500

6. Whole-house surge protection ROI: 40–60% — modest cost, appealing to tech-savvy buyers.

A \$300–\$775 investment that protects everything in the home. It's a checkbox on buyer wish lists, especially in NB where storm-related surges are common.

Cost: \$300–\$775 | Value added: \$200–\$500

7. GFCI and AFCI upgrades ROI: 50–75% — directly addresses home inspection findings.

Home inspectors check for GFCI protection in kitchens, bathrooms, garages, outdoors, and basements. Missing GFCIs are flagged on every inspection. Upgrading proactively means a cleaner inspection report.

Cost: \$600–\$1,500 (whole house) | Value added: \$400–\$1,000

8. Smart thermostat installation ROI: 40–60%

Smart thermostats (especially for NB's common baseboard heaters) appeal to energy-conscious buyers. Mysa or Sinopé smart baseboard thermostats on every zone show the home is modernized and manageable via phone.

Cost: \$200–\$350 per zone × 6–8 zones = \$1,200–\$2,800 | Value added: \$600–\$1,500

Tier 3: Lifestyle Upgrades (Moderate Return)

9. Outdoor electrical (deck outlets, landscape lighting) ROI: 30–50%

Outdoor living space is increasingly valued. GFCI outlets on a deck, pathway lighting, and a dedicated hot tub circuit expand usable living area. The investment is modest and improves curb appeal.

Cost: \$500–\$3,000 | Value added: \$200–\$1,200

10. Generator transfer switch (with or without generator) ROI: 30–50%

Even without selling the generator, a pre-installed transfer switch with a labelled inlet box shows buyers the home is outage-ready — a meaningful selling point in outage-prone NB.

Cost: \$800–\$1,500 | Value added: \$300–\$800

11. USB outlets and smart switches in key locations ROI: 20–40%

Small touches that make a home feel modern. USB-C outlets in kitchens, bedrooms, and home offices. Smart switches in the main living areas. Low cost, low return, but contributes to an overall impression of a well-maintained home.

Cost: \$200–\$600 | Value added: \$50–\$250

What NOT to Over-Invest In

- **Elaborate smart home systems** — buyers may not use the same ecosystem and see complexity rather than value
- **Solar panels** — the payback is too long to recover at sale in NB's market (though they don't hurt)
- **Oversized generator** — a 22kW standby generator costs \$15,000+ installed but adds only \$3,000–\$5,000 in home value
- **Decorative lighting** — custom chandeliers and designer fixtures are personal taste. Budget buyers see something they'll replace; high-end buyers want to choose their own.

The Strategic Approach

If you're preparing to sell a home in NB, prioritize in this order:

- Fix safety issues (FPE panel, K&T wiring, missing GFCIs) — these remove penalties
- Upgrade the panel to 200A if below — removes the most common buyer concern
- Add modern lighting in kitchen and living areas — improves photos and showings
- Install an EV charger circuit — forward-thinking differentiator
- Everything else based on budget and timeline

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Q6

How much does it cost to wire a new garage or workshop in New Brunswick?

Wiring Costs for a New Garage or Workshop in New Brunswick

Whether you're building a detached garage, converting an existing one into a workshop, or adding a heated workspace, the electrical costs depend heavily on the distance from your main panel, the tools and equipment you plan to run, and whether the building needs its own sub-panel.

Basic Garage Electrical Package

A standard detached garage with basic electrical typically includes:

- **Sub-panel** (60A or 100A) fed from the house main panel
- **2–4 general-purpose 120V circuits** for lights and outlets
- **1 dedicated 240V circuit** for a welder, air compressor, or table saw
- **Exterior light** with motion sensor
- **GFCI protection** on all garage receptacles (CEC requirement)

| Component | Cost Range | |-----|-----| | 60A sub-panel (installed) | \$800–\$1,500 | | 100A sub-panel (installed) | \$1,200–\$2,000 | | Underground feed from house (per metre) | \$25–\$50 | | Typical 15m underground run | \$375–\$750 | | Interior circuits (each) | \$250–\$450 | | 240V dedicated circuit | \$400–\$700 | | Overhead LED shop lights (4, installed) | \$400–\$800 | | Exterior motion light | \$150–\$300 | | TSANB permit + inspections | \$75–\$150 |

Total basic garage package: \$2,500–\$5,500

Workshop-Grade Electrical

A serious woodworking or metalworking shop needs more capacity:

- **100A or 200A sub-panel** with room for expansion
- **Multiple 20A circuits** at each workstation
- **2–3 dedicated 240V circuits** for table saw, dust collector, welder, air compressor
- **High-output LED lighting** (shop lights plus task lighting at workbenches)
- **Exhaust fan circuit** for dust collection or welding ventilation
- **Heating circuit** — electric heater or heat pump for year-round use in NB's climate

Total workshop package: \$5,000–\$12,000+

Underground Feed Requirements

The wire run from your house panel to the garage is often the most expensive single item. In New Brunswick:

- **Cable type:** NMWU (rated for direct burial) or TECK cable in conduit
- **Burial depth:** Minimum 24 inches (600mm) for NMWU without conduit, 18 inches in rigid conduit. Below the frost line (4–5 feet) is ideal to avoid frost heave damage on conduit.
- **Wire gauge:** Depends on amperage and distance. A 60A feed at 20 metres needs 6 AWG copper or 4 AWG aluminum. A 100A feed at 30 metres may need 1 AWG aluminum to account for voltage drop.
- **Trenching:** Hand-dug trenches cost nothing but your time. Machine trenching runs \$5–\$15 per linear metre if you hire it out.

NB-Specific Considerations

Frost depth: NB's frost line ranges from 4 feet in southern areas (Saint John, Sussex) to 5+ feet in northern NB (Bathurst, Edmundston). Underground conduit that doesn't go deep enough can heave and crack, damaging the wire inside.

Overhead feed alternative: If trenching is impractical (rock, landscaping, short distance), an overhead feed from house to garage is an option. The CEC requires minimum clearances: 3.5m over walkways, 4m over driveways, 5.5m over areas accessible to vehicles. Your electrician can advise which approach costs less for your layout.

Heating: An unheated NB garage drops to -20°C or colder in winter. If you plan to heat the space, factor in the electrical load: a 240V garage heater draws 20–40 amps, and a mini-split heat pump needs a dedicated 20–30 amp circuit. This may push you from a 60A sub-panel to 100A.

Insurance: Notify your home insurance company when adding a wired outbuilding. Coverage for tools and equipment in a detached garage often requires a rider. The permitted and inspected electrical work (with closed TSANB permit) supports your insurance claim if anything goes wrong.

Permit and Inspection

All garage and workshop wiring requires a TSANB electrical permit. Expect two inspections:

- **Underground/rough-in inspection** — before backfilling the trench and before closing walls
- **Final inspection** — after all circuits, outlets, lights, and the sub-panel are complete

Your electrician coordinates both inspections. Budget 5–10 business days for each inspection appointment.

Getting Quotes

Get 2–3 quotes from TSANB-licensed electricians in your area. Provide them with:

- Garage dimensions and layout
- Distance from house panel to garage
- List of equipment you plan to run (with amperage or wattage)
- Whether you want heating and what type
- Any future plans (EV charger in garage, welding equipment, dust collection)

Building in future capacity now is far cheaper than running additional circuits later. If there's any chance you'll add a 240V EV charger, welder, or heater in the future, size the sub-panel and feed wire accordingly from day one.

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How much electricity does a hot tub use in New Brunswick and what circuit does it need?

Hot Tub Electricity Costs and Electrical Requirements in New Brunswick

Hot tubs are a popular addition to New Brunswick homes, but the electrical requirements and ongoing operating costs are significant — especially through our cold winters.

Electrical Circuit Requirements

Most full-size hot tubs (6+ person) require:

- **240V dedicated circuit** — typically 40 or 50 amps depending on the heater size
- **GFCI breaker** at the panel — this is code-required, not optional
- **Disconnect switch** — mounted within sight of the hot tub, at least 1.5 metres away but no more than 9 metres. Must be lockable.
- **Proper wire gauge** — 6 AWG copper for 50-amp circuits, 8 AWG for 40-amp
- **NMWU cable or conduit** for any buried portion of the run

Smaller plug-and-play hot tubs (2–3 person, 110V) can run on a standard 15/20-amp outlet with GFCI protection, but they heat slowly and struggle in NB winters below -10°C .

Installation Costs

| Component | Cost | |-----|-----| | 50-amp GFCI breaker | \$80–\$150 | | Wiring (6 AWG copper, typical 15m run) | \$200–\$500 | | Disconnect switch with enclosure | \$100–\$200 | | Electrician labour | \$500–\$1,200 | | TSANB electrical permit | \$50–\$100 | | **Total electrical installation** | **\$930–\$2,150** |

Longer runs from the panel to the tub location cost more — if your panel is inside and the tub is 25+ metres away at the back of the yard, wiring costs can reach \$800–\$1,500 just for materials.

Monthly Electricity Costs

Hot tub electricity consumption varies dramatically with the seasons in NB:

Summer (June–August):

- Heater runs less frequently
- Typical consumption: 150–250 kWh/month

- Cost at NB Power's ~\$0.12/kWh: **\$18–\$30/month**

Shoulder seasons (April–May, September–October):

- Heater cycles more as ambient temperatures drop
- Typical consumption: 250–400 kWh/month
- Cost: **\$30–\$48/month**

Winter (November–March):

- Heater runs almost continuously to maintain temperature against -15°C to -30°C air
- Typical consumption: 400–700 kWh/month
- Cost: **\$48–\$84/month**

Annual total: approximately \$400–\$650/year for a well-insulated modern hot tub in New Brunswick. Older or poorly insulated tubs can cost 50–100% more.

Reducing Operating Costs

- **Quality cover:** A well-fitting, insulated cover (R-12 or higher) is the single biggest factor in operating cost. Replace covers every 4–5 years as waterlogging reduces insulation value.
- **Lower the temperature:** Each degree Celsius you lower the set point saves roughly 5–10% on heating costs. Try 37°C instead of 39°C.
- **Wind protection:** A privacy screen, fence, or enclosure around the tub reduces heat loss from wind — significant in NB where winter winds off the Bay of Fundy or Gulf of St. Lawrence are constant.
- **Thermal blanket:** A floating thermal blanket under the main cover adds another layer of insulation.
- **Off-peak heating:** If NB Power introduces time-of-use rates, program the tub to heat during off-peak hours.

TSANB Permit and Inspection

A hot tub electrical installation always requires a TSANB electrical permit. The inspection verifies:

- GFCI breaker properly installed and functioning
- Disconnect switch correctly placed and accessible
- Wire gauge appropriate for the circuit amperage and run length
- Buried cables at proper depth with correct cable type
- Bonding of the hot tub equipment and any nearby metal (deck railings, fences within 1.5m)

Have your electrician coordinate the inspection before filling the tub. Most TSANB inspections in the Moncton, Fredericton, and Saint John areas are scheduled within 3–5 business days.

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Q8

What electrical upgrades add the most resale value to a home in New Brunswick?

Electrical Upgrades That Add the Most Resale Value in New Brunswick

Not all electrical upgrades deliver the same return when you sell your New Brunswick home. Some are nearly invisible to buyers but essential for passing inspection, while others create visible wow factor and competitive advantage in the market. Here's how to prioritize your electrical investment for maximum resale impact, based on what New Brunswick buyers and home inspectors actually care about.

Tier 1: Essential Upgrades (Prevent Sale Price Reductions)

These don't necessarily increase your sale price above market value, but **not having them will reduce your price** by the cost of the upgrade plus a buyer's inconvenience premium.

1. 200-Amp Panel Upgrade

- **Cost:** \$2,500-\$4,500
- **Value recovered:** 75-100% — buyers expect it, and a 60-100 amp panel triggers immediate negotiation

- **Impact:** Removes the #1 electrical objection in pre-1990 New Brunswick homes. Buyers see a modern panel with clear labelling and feel confident about the home's electrical health.
- **When to do it:** Before listing if your home has less than 200 amps. This is particularly important in Moncton, Saint John, and Fredericton where buyers are increasingly sophisticated about electrical capacity due to heat pump and EV charger demand.

2. GFCI Protection in All Required Locations

- **Cost:** \$500-\$1,500 for whole home
- **Value recovered:** 100%+ — this is a code requirement that every inspector flags
- **Impact:** Missing GFCIs appear on every home inspection report. Buyers see it as a safety deficiency and a sign that the electrical system hasn't been maintained.

3. Federal Pacific or Zinsco Panel Replacement

- **Cost:** \$2,500-\$4,500
- **Value recovered:** 100%+ — these panels are deal-breakers for many buyers and all insurance companies
- **Impact:** A known-hazard panel can kill a sale entirely. Some New Brunswick insurance companies won't issue a policy until it's replaced, which means the buyer can't get a mortgage.

Tier 2: High-Value Upgrades (Attract Better Offers)

These upgrades make your home more competitive and can justify a higher asking price.

4. Recessed LED Pot Lights (Kitchen and Main Living Areas)

- **Cost:** \$1,500-\$3,500 for kitchen + living room
- **Value recovered:** 60-80% direct, plus faster sale time
- **Impact:** Modern lighting is one of the most visible upgrades in listing photos. A kitchen with 6-8 pot lights on dimmers photographs dramatically better than one with a single fluorescent fixture. In the New Brunswick market, this can be the difference between a home that sells in 2 weeks vs. 2 months.

5. EV Charger Circuit (Pre-Wired)

- **Cost:** \$800-\$2,000 for a 50-amp circuit with NEMA 14-50 outlet
- **Value recovered:** 50-75%, increasing annually as EV adoption grows
- **Impact:** Forward-thinking buyers — especially those relocating to New Brunswick from larger cities where EV adoption is higher — actively look for EV-ready homes. Even running the circuit and installing the outlet without the charger adds value. Label it clearly in the garage: "EV Charger Ready — 240V/50A."

6. Heat Pump Electrical Infrastructure

- **Cost:** \$500-\$1,500 for dedicated circuits + panel capacity
- **Value recovered:** 75-100% when combined with the heat pump installation
- **Impact:** Heat pumps are the #1 most-requested feature in New Brunswick real estate. A home with heat pump infrastructure (dedicated circuits, proper disconnect, adequate panel capacity) is immediately more attractive than one requiring electrical upgrades before a heat pump can be installed.

Tier 3: Lifestyle Upgrades (Differentiate Your Listing)

7. Smart Home Lighting (Lutron Caseta or Similar)

- **Cost:** \$500-\$1,200 for 8-12 smart switches
- **Value recovered:** 30-50% direct, but significant listing appeal
- **Impact:** "Smart home ready" in a listing description attracts younger buyers. The ability to control lights from a phone or voice assistant feels modern and premium. Lutron Caseta is the best choice for resale because it works with every smart home platform — buyers aren't locked into one ecosystem.

8. Under-Cabinet Kitchen Lighting

- **Cost:** \$400-\$800 for hardwired LED strips
- **Value recovered:** 50-70%
- **Impact:** Under-cabinet lighting makes kitchens look high-end in photos and in person. It's a small investment with outsized visual impact.

9. Outdoor Lighting (Architectural + Security)

- **Cost:** \$1,500-\$3,500 for a comprehensive package
- **Value recovered:** 40-60%
- **Impact:** Curb appeal is critical in New Brunswick's market where winter darkness means many showings happen in the dark. A well-lit exterior makes a powerful first impression. Practical security lighting also appeals to safety-conscious buyers.

10. Dedicated Home Office Circuit

- **Cost:** \$300-\$600 for a dedicated 20-amp circuit
- **Value recovered:** 40-60%
- **Impact:** Post-pandemic, dedicated home office space is a top buyer priority. A bedroom with its own 20-amp circuit, multiple outlets, and good lighting is significantly more appealing as a home office than one that trips a

breaker when you plug in a space heater alongside your monitor and computer.

Upgrades That DON'T Add Proportional Value

Complete copper rewire (\$12,000-\$25,000) — While necessary for safety in some older homes, buyers rarely pay a premium for something they can't see. If your home has knob and tube or aluminum wiring, budget for the rewire but don't expect to recover the full cost. You may recover 40-60%.

Whole-home generator (\$5,000-\$15,000 installed) — While desirable in rural New Brunswick where power outages are common, the market for homes with standby generators is narrow. You'll recover 30-50% at best. It's a better investment for your own comfort than for resale.

Extensive smart home automation (\$3,000-\$10,000+) — Whole-house automation impresses some buyers and overwhelms others. Complex systems that require a manual are a negative for many purchasers. Keep smart upgrades simple and based on widely-supported platforms.

Best Bang for Your Buck Strategy

If you're preparing a New Brunswick home for sale and have a \$5,000-\$8,000 budget for electrical upgrades:

- **Panel upgrade to 200A** (if needed): \$3,000-\$4,000
- **GFCI protection throughout**: \$500-\$1,000
- **Kitchen pot lights on dimmers**: \$1,200-\$2,000
- **Under-cabinet LED lighting**: \$400-\$600
- **EV charger outlet in garage**: \$500-\$800

Total: \$5,600-\$8,400

This combination addresses the most common inspection deficiencies, creates the most visible improvement for listing photos, and positions the home as modern and future-ready. The return in reduced buyer objections, faster sale time, and higher offers typically exceeds the investment.

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Q9

How much does it cost to install recessed pot lights throughout my New Brunswick home?

Cost to Install Recessed Pot Lights Throughout a New Brunswick Home

Recessed pot lights (also called can lights or downlights) are the most popular lighting upgrade in New Brunswick homes. They provide clean, modern illumination without bulky fixtures hanging from the ceiling — particularly appealing in homes with standard 8-foot ceilings where pendant lights and chandeliers can feel cramped. Here's what it actually costs in the New Brunswick market.

Per-Light Cost Breakdown

Materials per light:

- LED recessed light fixture (new construction or retrofit): \$15-\$60 each
- Wire and connectors: \$5-\$15 per light
- Junction box and fittings: \$3-\$8 per light
- Dimmer switch (per circuit, 1 per room): \$25-\$50
- **Materials subtotal: \$48-\$133 per light**

Labour per light:

- New construction (open ceiling): \$50-\$100 per light
- Retrofit (existing finished ceiling): \$100-\$200 per light
- Adding a new circuit from panel: \$200-\$400 per circuit (shared across multiple lights)
- **Labour subtotal: \$50-\$200 per light**

Total per light installed:

- New construction: **\$100-\$175 per light**
- Retrofit (finished ceiling): **\$150-\$300 per light**

Whole-Home Cost Estimates

For a typical New Brunswick home, here's how many pot lights each room needs and what it costs:

3-Bedroom Bungalow (1,200 sq ft):

Room	Number of Lights	Retrofit Cost		-----	-----	-----		Kitchen (10x12)	6	\$1,200-\$1,800				
Living room (12x14)	6-8	\$1,200-\$2,000		Master bedroom	4	\$600-\$1,000		Bedroom 2	4	\$600-\$1,000				
Bedroom 3	4	\$600-\$1,000		Bathroom	2-3	\$400-\$750		Hallway	3-4	\$500-\$800		**Total: 29-35 lights**		**\$5,100-\$8,350**

4-Bedroom Two-Storey (2,000 sq ft):

| Room | Number of Lights | Retrofit Cost | |-----|-----|-----| | Kitchen (12x14) | 8 | \$1,500-\$2,400 |
| Living room (14x16) | 8-10 | \$1,500-\$2,500 | | Dining room | 4-6 | \$700-\$1,500 | | Master bedroom + ensuite | 6 | \$1,000-\$1,500 | | Bedrooms 2-4 (3 rooms) | 12 | \$1,800-\$3,000 | | Main bathroom | 3 | \$500-\$750 | | Hallways (2 floors) | 6-8 | \$1,000-\$1,600 | | Basement rec room | 6-8 | \$1,000-\$2,000 | | **Total: 53-67 lights** | | **\$9,000-\$15,250** |

What Affects the Price

Ceiling type is the biggest cost driver:

- **Open ceiling (new construction or renovation with ceiling removed):** Cheapest — electrician has full access to joists, can position lights optimally, and wiring is straightforward. \$100-\$175 per light.
- **Drywall ceiling with accessible attic above:** Moderate — electrician cuts holes from below and runs wire through the attic. \$150-\$225 per light.
- **Drywall ceiling with floor above (between floors):** Most expensive — wire must be fished through closed joist bays. Requires multiple ceiling openings that need patching. \$200-\$300 per light.
- **Plaster ceiling (common in pre-1960 NB homes):** Add 20-30% to the drywall prices. Plaster is harder to cut, more prone to cracking, and patch repair is more expensive than drywall.

Number of new circuits needed: Each 15-amp circuit supports approximately 12-15 LED pot lights (at 10-15 watts each, well under the 1,440W continuous load limit). If your panel has available spaces, adding circuits is straightforward. If the panel is full, a sub-panel or tandem breakers add \$200-\$600.

Insulation contact rating: In New Brunswick's climate, ceilings below an attic have thick insulation. Pot lights installed in insulated ceilings must be **IC-rated** (Insulation Contact) to prevent fire. IC-rated LED fixtures cost \$5-\$15 more than non-IC models but are mandatory. Non-IC fixtures require a 75mm (3 inch) clearance from insulation on all sides, which creates cold spots and energy loss — avoid these.

Fixture quality:

- **Builder-grade LED fixtures** (\$15-\$25 each): Adequate light output, limited dimming range, may buzz slightly on dimmers, 3-5 year warranty. Fine for bedrooms and closets.
- **Mid-range LED fixtures** (\$30-\$50 each): Better colour rendering (90+ CRI), smooth dimming to 5-10%, quieter operation, 5-10 year warranty. Best value for most rooms.
- **Premium LED fixtures** (\$50-\$100+ each): Superior colour rendering (95+ CRI), dim to 1%, selectable colour temperature (2700K-5000K), smart-home compatible, 10+ year warranty. Worth it for kitchens and living rooms where light quality matters.

Sizing and Spacing Guidelines

Common sizes:

- **4-inch:** Best for hallways, bathrooms, accent lighting, and lower ceilings (7-8 feet). Provides focused light with less glare.
- **6-inch:** The standard for most rooms — kitchens, living rooms, bedrooms. Provides broader, more even illumination. Most popular in New Brunswick homes.

Spacing formula: Place lights at a distance equal to **half the ceiling height** apart. For an 8-foot ceiling: lights every 4 feet. For a 9-foot ceiling: every 4.5 feet. Keep lights at least 2-3 feet from walls to avoid harsh wall-wash shadows.

Colour Temperature Selection

- **2700K (warm white):** Bedrooms, living rooms, dining rooms — cozy, relaxed atmosphere
- **3000K (soft white):** Kitchen, bathroom, home office — the most versatile choice and the most popular in New Brunswick installations
- **3500K (neutral white):** Task areas, laundry rooms, workshops — bright and functional
- **4000K+ (cool white/daylight):** Garages, utility rooms only — too harsh for living spaces

Tip: Pick **one colour temperature** for the entire main floor to maintain visual consistency as you move between rooms. Many homeowners in New Brunswick choose 3000K as a whole-home standard.

TSANB Permit Required

Installing recessed pot lights requires an electrical permit in New Brunswick. The permit costs \$50-\$100 and covers the TSANB inspection to verify:

- Proper IC rating for insulated ceilings

- Correct circuit sizing and breaker protection
- AFCI protection on bedroom circuits (CEC 2018+)
- Appropriate fixture spacing and placement
- Proper junction box and wiring connections

Save Money: Do It Room by Room

If a whole-home installation exceeds your budget, many New Brunswick electricians offer room-by-room pricing. Start with the kitchen and main living area (the highest-impact rooms), then add bedrooms and secondary spaces over time. You'll pay slightly more total due to multiple service calls, but it spreads the cost across several months. Ask if your electrician offers a multi-visit discount.

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How much does NB Power charge for electricity and how does it affect my electrical renovation budget?

NB Power Electricity Rates and Their Impact on Renovation Budgets

Understanding NB Power's rate structure is essential for any electrical renovation planning in New Brunswick. Whether you're upgrading your panel, adding circuits, or planning energy-efficient improvements, knowing what you'll pay per kilowatt-hour helps you calculate both the renovation cost and the ongoing operating cost of your new electrical systems.

Current NB Power Residential Rates

NB Power uses a **two-tier rate structure** for residential customers as of 2024-2025:

- **First tier:** The first block of monthly consumption is charged at approximately **\$0.1131 per kWh**
- **Second tier:** Consumption above the threshold is charged at approximately **\$0.1474 per kWh**
- **Monthly service charge:** Approximately **\$22.47** regardless of consumption
- **Plus HST (15%)** on the total bill

The average New Brunswick household uses approximately **10,000-12,000 kWh per year**, which works out to roughly **\$150-\$200 per month** including the service charge and HST. Homes with electric heat — which is common across the province — can see winter bills of **\$300-\$500 per month** depending on the home's size and insulation quality.

How This Affects Renovation Decisions

Panel upgrades and service size: When upgrading from 100 to 200 amps, you're not increasing your power bill just by having a bigger panel — you only pay for what you use. However, a 200-amp service enables you to add high-draw equipment like heat pumps, EV chargers, and electric vehicle supply equipment that can significantly change your monthly consumption. Plan for these future loads when budgeting.

Heating system choices: At current NB Power rates, heating a 1,500 sq ft New Brunswick home with electric baseboard heaters costs approximately **\$2,000-\$3,500 per heating season** (October through April). Switching to a mini-split heat pump system (\$4,000-\$8,000 installed) can reduce that heating electricity cost by 50-65%, saving \$1,000-\$2,200 annually. The electrical renovation to support heat pumps typically includes a dedicated 30-amp circuit per outdoor unit (\$300-\$500 per circuit) and potentially a panel upgrade.

EV charger installations: A Level 2 EV charger (240V, 40-amp circuit) adds approximately **\$30-\$60 per month** to your NB Power bill for average driving (15,000-20,000 km/year). The installation cost runs \$800-\$2,000 in New Brunswick. NB Power has periodically offered rebates and time-of-use pilot programs for EV charging — check their website for current incentives before budgeting your installation.

Hot water tank vs. tankless: Electric hot water tanks cost approximately **\$400-\$600 per year** to operate at NB Power rates. Tankless electric water heaters use less energy overall but require massive circuit capacity — a whole-house electric tankless unit needs 150+ amps at 240V, which is impractical on most residential services. Heat pump water heaters are gaining popularity in New Brunswick as a middle ground, using 60-70% less electricity than standard electric tanks.

Budgeting for Electrical Renovations in New Brunswick

When planning your electrical renovation budget, include these NB-specific cost factors:

Labour rates: Licensed electricians in New Brunswick charge **\$85-\$150 per hour** depending on the region. Moncton and Fredericton tend to be at the higher end due to demand, while rural areas may be slightly lower but with added travel charges of \$50-\$100.

HST impact: New Brunswick's 15% HST applies to all electrical work — both labour and materials. On a \$10,000 renovation, that's \$1,500 in tax. This is higher than neighbouring Nova Scotia (15%) and significantly higher than if you were in Alberta (5% GST only). Always confirm whether quotes include or exclude HST.

Permit fees: TSANB electrical permits range from **\$50 to \$200+** depending on the scope of work. Budget \$75-\$100 for most residential projects.

NB Power connection fees: If your renovation involves a service upgrade, NB Power charges for the meter base change and reconnection. Expect **\$200-\$500** for a standard residential service upgrade, with potential additional charges if the overhead or underground service line needs modification.

Energy Efficiency Incentives

NB Power and the provincial government periodically offer incentive programs that can offset renovation costs:

- **Total Home Energy Savings Program** — Provides rebates for insulation, heat pumps, and energy-efficient upgrades after an energy audit. Heat pump rebates have historically ranged from \$600 to \$2,500.
- **Low-Income Energy Savings Program** — Provides free energy-saving upgrades for qualifying households.
- **Municipal incentives** — Some New Brunswick municipalities offer additional rebates or tax incentives for energy-efficient renovations.

Always check the current NB Power and provincial incentive programs before finalizing your renovation budget — available programs change annually and can significantly reduce your out-of-pocket costs.

Calculating Your Return on Investment

For electrical upgrades that improve energy efficiency, use NB Power's rate of roughly **\$0.13/kWh** (blended average) to calculate payback:

- **LED lighting upgrade** (whole house): \$200-\$500 investment, saves \$100-\$200/year = 1-3 year payback
- **Heat pump installation**: \$4,000-\$8,000 investment, saves \$1,000-\$2,200/year = 3-5 year payback
- **Smart thermostat + electrical zoning**: \$300-\$800 investment, saves \$150-\$300/year = 2-3 year payback
- **EV charger (vs. gasoline)**: \$800-\$2,000 investment, saves \$1,500-\$2,500/year in fuel costs = under 1 year payback

These calculations make electrical efficiency upgrades some of the best home improvement investments in New Brunswick, where electricity is a primary energy source for heating, cooking, and hot water in many homes.

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Q11

How much does a whole home rewire cost for a 1950s bungalow in Saint John?

Whole Home Rewire Cost for a 1950s Bungalow in Saint John

A full rewire of a 1950s bungalow in Saint John typically costs between \$12,000 and \$22,000 depending on the size of the home, the condition of existing wiring, and whether you are upgrading the electrical panel at the same time.

This is one of the most significant electrical investments a homeowner can make, but for a 70+ year old home with original wiring, it is often necessary for safety, insurance compliance, and modern living.

Why 1950s Homes Need Rewiring

Homes built in the 1940s-1960s across Saint John's south end, west side, and north end neighbourhoods typically have 60A service with 6-8 circuits — designed for an era when a toaster and a few light bulbs were the peak electrical load. Today, a typical New Brunswick household runs heat pumps, multiple computers, kitchen appliances drawing 1,500+ watts each, and potentially an EV charger. The original rubber-insulated or cloth-wrapped wiring in these homes is often brittle, cracking, and unable to safely carry modern loads.

Saint John also has a significant number of heritage homes in the uptown area with knob-and-tube wiring, which many insurance companies in New Brunswick now refuse to cover or charge substantial premium surcharges of 15-25%.

Cost Breakdown by Home Size

| Home Size | Circuit Count | Typical Cost Range | |-----|-----|-----| | Under 1,000 sq ft | 15-20 circuits | \$10,000 - \$15,000 | | 1,000-1,500 sq ft | 20-25 circuits | \$14,000 - \$20,000 | | 1,500-2,000 sq ft | 25-35 circuits | \$18,000 - \$25,000 | | Over 2,000 sq ft | 35-45 circuits | \$22,000 - \$30,000 |

These estimates include labour, materials, TSANB permit and inspection fees, and a 200A panel upgrade (which is almost always done alongside a rewire).

What Is Included in a Full Rewire

- Removal of all old wiring (knob-and-tube, aluminum, or deteriorated copper)
- New 200A main panel with arc-fault and ground-fault breakers where required by current CEC
- New NMD90 copper wiring throughout the home
- New outlets in every room (current code requires outlets every 12 feet along walls and within 6 feet of any doorway)
- Dedicated 20A circuits for kitchen, bathroom, and laundry
- GFCI protection for bathrooms, kitchen counters, garage, and exterior outlets
- AFCI protection for bedrooms (CEC requirement)
- New light switches and fixtures can be included but are often quoted separately
- TSANB permit (\$150-\$300) and rough-in plus final inspection

What Drives the Price Up

- **Plaster walls** — 1950s Saint John bungalows typically have plaster-and-lath walls, which are harder and slower to fish wire through than modern drywall. Expect 20-30% higher labour costs compared to a drywall home
- **Finished basement** — If the basement is finished, the electrician needs to access wiring paths that are hidden behind paneling or ceiling tiles. This may require removal and reinstallation of finishes, adding \$2,000-\$5,000
- **Asbestos** — Some 1950s homes have asbestos insulation in walls or around ducts. If disturbed during rewiring, professional abatement is required by WorkSafeNB regulations. Testing costs \$200-\$400 and abatement can add \$3,000-\$10,000 depending on extent
- **Adding circuits for modern needs** — Running a dedicated 50A circuit for an EV charger, a 30A circuit for an electric dryer, or wiring for a future heat pump adds \$300-\$800 per circuit
- **NB Power service upgrade** — If the overhead service entrance from the NB Power pole is undersized or deteriorated, NB Power handles the connection but the homeowner pays for the new mast and meter base (\$500-\$1,500)

Timeline

A complete rewire of a typical 1,200 sq ft bungalow takes 5-8 working days with a crew of 2 electricians. Add 1-2 days for the TSANB inspection (rough-in inspection before walls are closed, final inspection after). Most Saint John electricians book 2-4 weeks out for large projects like rewires, so plan accordingly.

How to Save Money

- Do your own drywall patching after the rewire (saves \$1,500-\$3,000)
- If you are planning a renovation, combine the rewire with the reno so walls are already open
- Get 3-4 quotes — prices in Saint John vary by 20-30% between companies
- Ask about whether a partial rewire makes sense. If only the main floor wiring is degraded but the basement was updated in the 1990s, a partial rewire at 40-60% of the full cost may be sufficient

Permits and Insurance

A TSANB permit is mandatory for a rewire. The permit ensures two inspections — rough-in (before drywall goes back up) and final (everything complete and energized). Once the final inspection passes, you receive a certificate of compliance that your insurance company will want to see. Most New Brunswick insurance providers offer a 5-10% premium reduction once knob-and-tube or aluminum wiring is replaced with modern copper and a 200A panel, which helps offset the rewire cost over time.

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Q12

How much does an electrician charge per hour in New Brunswick in 2025?

Electricians in New Brunswick typically charge \$85 to \$130 per hour in 2025, with the rate depending on the type of work, the electrician's experience, and whether it's a regular service call or an emergency. Journeyman electricians generally charge at the lower end of that range, while master electricians and specialty work command higher rates.

Typical rate structure in New Brunswick. Most electricians don't just charge an hourly rate — they also have a service call or trip charge of \$75 to \$125 that covers the first hour or first 30 minutes on site. This means a quick fix that takes 20 minutes might still cost you \$150 to \$200 when you factor in the trip charge. For larger projects like panel upgrades, rewiring, or EV charger installations, most electricians quote a flat project rate rather than hourly, which actually works in your favour since experienced electricians work faster.

Emergency and after-hours rates are significantly higher. If you need an electrician at 2 AM because you smell burning from your panel or have a sparking outlet, expect to pay \$150 to \$250 per hour with a minimum 2-hour charge. Weekend and holiday rates are typically 1.5 to 2 times the regular rate. While nobody wants to pay emergency rates, electrical emergencies are genuine life-safety situations — a burning smell from a panel or sparking outlet can become a house fire within minutes.

Regional variations within New Brunswick. Electricians in Moncton, Fredericton, and Saint John tend to charge at the higher end of the range due to higher demand and operating costs. In smaller communities like Bathurst, Miramichi, Campbellton, or rural areas, rates may be \$10 to \$20 per hour lower, but the trip charge may be higher to account for travel distance. Some rural New Brunswick homeowners find that electricians from the nearest city charge a travel fee on top of the service call, which can add \$50 to \$150 depending on distance.

How to get the best value. Always get at least two quotes for any project over \$500. Ask for a written quote that specifies exactly what's included — materials, labour, TSANB permit fee, and any travel charges. Check that the electrician is TSANB licensed by asking for their licence number. And bundle work when possible — if you need an outlet added and a light fixture installed, having the electrician do both in one visit saves you a second trip charge.

You can find licensed electricians in your area through the New Brunswick Construction Network at newbrunswickconstructionnetwork.com.

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How much does a 200 amp panel upgrade cost in Moncton?

A 200 amp panel upgrade in Moncton typically costs between \$2,500 and \$4,000, depending on the complexity of your existing setup, the brand of panel installed, and whether any additional work like rewiring the meter base or upgrading the service entrance is needed.

The biggest factor in pricing is the condition of your current electrical system. If you have a straightforward swap from a 100 amp panel to a 200 amp panel with an existing service entrance that can handle the upgrade, you're looking at the lower end of that range — around \$2,500 to \$3,000. However, many older Moncton homes, particularly those in the downtown core and older neighbourhoods like Lewisville or Sunny Brae, may need a new service entrance cable, a new meter base, and coordination with NB Power for the service drop. That pushes the cost closer to \$3,500 to \$4,000 or more.

Why upgrade to 200 amps? The most common reasons homeowners in New Brunswick upgrade include adding an EV charger (which needs a dedicated 40-50 amp circuit), installing a heat pump (extremely popular with NB Power rebates), finishing a basement with additional circuits, or replacing an aging Federal Pacific or Zinsco panel that's a known fire hazard. If your home was built before the mid-1980s, there's a good chance you're still on 100 amp service, which simply can't handle modern electrical demands.

The TSANB permit and inspection are mandatory for any panel upgrade in New Brunswick. Your licensed electrician will pull the permit before starting work, and a TSANB inspector will verify the installation meets the Canadian Electrical Code after completion. The permit fee is typically \$150 to \$300 depending on the scope. Don't skip this step — unpermitted panel work can void your home insurance and create serious problems when selling your home.

Most panel upgrades in the Moncton area are completed in a single day, though NB Power may need a separate appointment to disconnect and reconnect the service. Your electrician will coordinate this timing so you have minimal downtime.

For an accurate quote on your specific situation, consider reaching out to a licensed electrician through the New Brunswick Construction Network at newbrunswickconstructionnetwork.com.

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Q14

How much does it cost to replace knob and tube wiring in a Saint John heritage home?

Replacing knob and tube wiring in a Saint John heritage home typically costs \$15,000 to \$35,000 for a complete rewire, depending on the size of the home, accessibility of the walls and attic spaces, and whether you need to open up finished walls and ceilings to pull new wire.

Saint John has one of the oldest housing stocks in New Brunswick, with many beautiful heritage homes in neighbourhoods like Uptown, the South End, and Millidgeville that still have original knob and tube wiring from the early 1900s. While this wiring was perfectly adequate when installed, it was designed for a fraction of the electrical load modern homes demand — and after 80 to 120 years, the cloth insulation deteriorates, becomes brittle, and creates fire hazards.

The biggest cost factor is accessibility. In a home where walls are open (during a renovation) or accessible through an unfinished attic and basement, an electrician can pull new Romex wire through the structure relatively efficiently. But in a fully finished heritage home with plaster walls, hardwood trim, and decorative details you want to preserve, the electrician needs to use creative routing techniques — fishing wire through wall cavities, running wire through the attic and basement to avoid opening walls, and sometimes cutting small access holes that are patched afterward. This labour-intensive approach significantly increases the cost.

A typical price breakdown for a 2,000 square foot Saint John heritage home:

- Complete rewire with new 200 amp panel: \$18,000 to \$30,000
- Panel upgrade only (if wiring is being done in phases): \$2,500 to \$4,000
- Per-circuit knob and tube replacement: \$400 to \$800 per circuit
- Patching and finishing (if walls are opened): \$2,000 to \$5,000 additional

Insurance is often the trigger. Many New Brunswick insurance companies will not insure a home with active knob and tube wiring, or they'll charge significantly higher premiums. If you're buying a heritage home in Saint

John with knob and tube, your insurance company may require remediation within a specific timeframe. Some homeowners address this in phases — replacing the most critical circuits first (kitchen, bathroom, bedrooms) and completing the rest over time.

TSANB permits and inspections are required for any knob and tube replacement. Your electrician will pull the permit and schedule inspections at key stages. For heritage homes, the electrician should be experienced with older construction — plaster and lath walls, balloon framing, and the quirks of 100-year-old buildings. Not every electrician has this experience, so ask specifically about their heritage home work.

One important note about insulation. If your Saint John home has had blown-in insulation added to the walls or attic (very common in older Maritime homes trying to reduce heating costs), and the insulation is in contact with knob and tube wiring, this is an immediate fire hazard. The wiring was designed to dissipate heat in open air — covering it with insulation traps heat and can cause the deteriorated cloth insulation to ignite. This situation should be addressed urgently.

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Q15

How much does it cost to run electrical to a detached garage or workshop in rural New Brunswick?

Running electrical service to a detached garage or workshop in rural New Brunswick typically costs \$2,500 to \$8,000, with the biggest variable being the distance from your main panel to the outbuilding and whether you need to trench underground or can run overhead.

The two main approaches are **underground** and **overhead** runs, and each has distinct cost implications for New Brunswick properties.

Underground runs are the preferred method and required by many municipalities. You'll need to trench from the house to the garage at a minimum depth of 600mm (24 inches) if using rigid PVC conduit, or 750mm if using direct-burial cable without conduit. In New Brunswick, many electricians recommend going deeper — to 900mm or more — to stay well below the frost line and avoid damage from frost heave. For a typical 15 to 30 metre run, expect to pay \$2,500 to \$5,000 for a 60 amp subpanel setup, or \$4,000 to \$8,000 for a 100 amp service suitable for a serious workshop with welders, compressors, and heavy equipment.

Cost breakdown for a typical installation:

- Subpanel (60 amp): \$300 to \$600
- Wire and conduit (per metre): \$15 to \$40 depending on amperage
- Trenching (per metre): \$10 to \$25 for open ground, \$30 to \$60 through landscaping or gravel driveways
- Electrician labour: \$800 to \$2,000
- TSANB permit and inspection: \$150 to \$300

Rural New Brunswick properties often have longer runs — 30 to 60 metres or more between the house and a detached garage or barn. Longer distances require heavier gauge wire to prevent voltage drop. For a 60 amp circuit at 30 metres, you'll likely need 4 AWG copper or 2 AWG aluminum. At 60 metres, you may need to upsize to 2 AWG copper or 1/0 aluminum. Your electrician will calculate the exact wire size based on the distance and load requirements.

Overhead runs are sometimes used in rural areas where trenching is impractical (rocky terrain, long distances, or crossing driveways). Overhead service requires proper clearances — minimum 3.7 metres above ground, 4.5 metres above driveways, and proper weatherhead connections at both buildings. This approach can be cheaper for long distances but is more exposed to ice storm damage, which is a real consideration in New Brunswick.

What to include in your garage subpanel. At minimum, plan for lighting circuits, a couple of general outlet circuits (20 amp), a dedicated circuit for a garage door opener, and at least one 240V circuit for future use (EV charger, welder, or compressor). If you're building a serious workshop, a 100 amp subpanel gives you room for table saws, welders, dust collection systems, and heating. Spending a few hundred dollars more on a larger subpanel now saves thousands in future upgrades.

A TSANB permit is required for all detached building electrical work in New Brunswick. The inspector will verify proper wire sizing, burial depth, grounding, bonding between buildings, and subpanel installation.

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