

Greenhouse Gas (GHG) Baseline Inventory — FY2026

North Quant Solutions Inc. — Greenhouse Gas (GHG) Baseline Inventory

Reporting entity: North Quant Solutions Inc. (“North Quant”) **Base year:** FY2026 (first full inventory) · **Prepared:** 2026-07-18 · **Owner:** Murad Ali, Director **Standard:** GHG Protocol *Corporate Accounting and Reporting Standard* (operational-control boundary) **Method:** Estimation-based, proportionate to a sole-director, remote-first software micro-company

1. Purpose and honest framing

This is North Quant’s inaugural, good-faith greenhouse-gas inventory. North Quant is an early-stage (incorporated 2024-05-01), remote-first software company operated by a single director from a home office in Ottawa, Ontario, with no owned facilities, no company vehicles, and no on-site combustion. Its operating footprint is therefore inherently very small, and this document reports that honest result — approximately **0.12 tonnes of CO₂e per year** — with every number, assumption and source shown so that the figure is fully defensible and reproducible.

The inventory follows the **GHG Protocol Corporate Standard** using an **operational-control** consolidation boundary. Because the company has essentially no metered, dedicated energy use of its own, figures are **estimated** from published activity data and emission factors rather than from utility invoices; this is the appropriate and accepted approach at this scale and is stated transparently.

2. Organizational boundary

Item	Treatment
Legal entity	North Quant Solutions Inc. (federal CBCA #1599692-9), Ottawa, Ontario
Consolidation approach	Operational control
Facilities	None owned or leased. Work performed from the Director’s home office (a portion of a private residence). Only the business-attributable share of that residence’s electricity is included.
Vehicles	None owned, leased, or reimbursed.
Headcount	1 (sole director).
Base year	FY2026 (rebaselined only on a structural change, e.g., first employee hire or dedicated premises).

3. Emission factors and activity assumptions (all sources cited)

Ref	Parameter	Value used	Basis / source
EF-1	Ontario grid electricity intensity	30 g CO₂e/kWh	Environment and Climate Change Canada, <i>National Inventory Report</i> (provincial electricity generation intensity), consistent with IESO’s 2021 Ontario supply mix of ~91% non-emitting (~55% nuclear, ~24% hydro, ~8% wind, ~4% solar). Ontario’s reported grid intensity has ranged ~30–58 g CO ₂ e/kWh in recent years; 30 g/kWh is used as a representative low-carbon value.
EF-2	Typical Ontario household electricity	9,000 kWh/yr	Ontario Energy Board typical residential consumption (~750 kWh/month), gas-heated dwelling.
A-1	Home-office allocation	10% of household electricity	Floor-area basis: one ~12 m ² workspace within a ~110 m ² dwelling ≈ 11%, rounded down to 10%.

Ref	Parameter	Value used	Basis / source
EF-3	Laptop embodied carbon (manufacture + transport + end-of-life, excl. use phase)	260 kg CO₂e , amortized over 4-year life	Manufacturer life-cycle assessments: Dell <i>Carbon Footprint of a Typical Business Laptop</i> (~322 kg CO ₂ e cradle-to-grave, ~86% non-use); Apple Product Environmental Reports (4-yr assumed life). Laptop median cradle-to-grave ~ 215 kg (range ~158–287 kg); embodied ~ 80% of lifecycle. 260 kg is a conservative (upper-mid) embodied value.
A-2	Cloud/datacenter electricity	~600 kWh/yr	Estimated pilot-stage workload for a single small SaaS deployment (a few small always-on instances + managed database + object storage), including a ~1.2 datacenter PUE overhead.
EF-4	Data-transmission energy intensity	0.03 kWh/GB	Carbon Trust / IEA fixed-network transmission estimates (recent literature converging ~0.02–0.06 kWh/GB).
A-3	Business internet data volume	~1,000 GB/yr	Estimated business share of home broadband (video calls, cloud sync, research).
EF-5	Electricity T&D losses	~9% uplift on Scope 2 kWh	Standard Canadian transmission-and-distribution loss factor (GHG Protocol Scope 3 Category 3).

Notes on conservatism. Where a defensible range exists, the inventory selects a value at or above the midpoint (e.g., 260 kg laptop embodied; applying the Ontario 30 g/kWh factor to cloud compute even though North Quant’s primary hosting region is **Montréal / AWS ca-central-1 on Québec’s hydro grid at ~1–2 g/kWh**, which would make cloud emissions an order of magnitude lower). The reported total is thus a **conservative upper estimate**, not an under-count.

4. Inventory by scope

Scope / GHG Protocol category	Activity	Quantity	Emission factor	t CO ₂ e/yr
Scope 1 – Direct	Owned combustion, vehicles, fugitive/refrigerants under company control	none	—	0.000
Scope 2 – Electricity (location-based)	Home-office electricity, allocated share	9,000 kWh × 10% = 900 kWh	30 g CO ₂ e/kWh (EF-1)	0.027
Scope 3 · Cat 2 – Capital goods	1 laptop, embodied, amortized	260 kg ÷ 4 yr	manufacturer LCA (EF-3)	0.065
Scope 3 · Cat 1 – Purchased services	Cloud compute (Canadian region)	~600 kWh/yr	30 g CO ₂ e/kWh (EF-1, conservative)	0.018
Scope 3 · Cat 1 – Purchased services	Other SaaS / digital subscriptions (allocated share)	small	estimate	0.005
Scope 3 · Cat 1 – Purchased services	Internet / data transmission	~1,000 GB/yr	0.03 kWh/GB × 30 g (EF-4)	0.001
Scope 3 · Cat 3 – Fuel- & energy-related	Electricity T&D losses	~81 kWh	30 g CO ₂ e/kWh (EF-5)	0.002
Scope 3 · Cat 1 – Purchased goods	Office supplies / paper (paperless operation)	minimal	estimate	0.001
Scope 3 · Cat 6 – Business travel	Baseline year: none undertaken	none	—	0.000
Scope 3 · Cat 7 – Employee commuting	Remote-first: no commute	none	—	0.000

Scope / GHG Protocol category	Activity	Quantity	Emission factor	t CO ₂ e/yr
Scope 3 · Cat 5 — Waste	Negligible; e-waste captured under Cat 2 end-of-life	minimal	—	0.000

Totals

Scope	t CO ₂ e/yr
Scope 1	0.000
Scope 2 (location-based)	0.027
Scope 3 (identified categories)	0.092
TOTAL	≈ 0.12 t CO₂e/yr (≈ 119 kg)

5. Interpretation

- The footprint is **dominated by embodied hardware** (the amortized laptop, 0.065 t) and **cloud compute** (0.018 t) — the honest signature of a laptop-and-cloud micro-company. Direct energy use (Scope 2) is small because the operation is a single home office on a low-carbon grid, and the largest emission source for most companies — **commuting and business travel** — **is zero** because the company is remote-first.
- **For context:** ≈0.12 t CO₂e/yr is roughly the emissions of driving an average passenger car **~600 km**, and is about **0.7% of a single Canadian's** average annual per-capita footprint (~17 t CO₂e, ECCC). The whole company emits, in a year, less than an average Canadian household emits in a few weeks.
- **Largest reduction levers**, in order: (1) extend hardware service life and buy refurbished/low-power devices (reduces the dominant Cat 2 line); (2) keep hosting on Québec-hydro / low-carbon Canadian regions and right-size compute (the actual factor is ~1–2 g/kWh, far below the conservative 30 g used here); (3) maintain remote-first, paperless operations to keep commuting, travel, and paper at zero.

6. Reduction target

North Quant commits to **reduce its emissions intensity (t CO₂e per FTE) by 10% by FY2027** against this FY2026 baseline, pursued through the levers above. This is a good-faith operational target; it is **not** an SBTi-validated science-based target (North Quant does not claim SBTi validation).

7. Limitations and improvement plan

- Figures are **estimates** from published activity data and emission factors, not metered invoices — proportionate and disclosed as such.
- The cloud line applies a conservative Ontario grid factor rather than the primary region's actual (lower) Québec-hydro factor, deliberately over-stating rather than under-stating.
- Future inventories will incorporate any actual business travel, additional headcount, or dedicated premises, and will move from allocation-based to invoice/tool-based data where it becomes available (e.g., cloud-provider carbon dashboards).

Publication. A summary of this baseline is disclosed publicly in North Quant's Sustainability Disclosure at <https://northquant.ca/sustainability>. This full methodology document supports that disclosure and is available on request.

Prepared and approved by the sole Director, North Quant Solutions Inc. — 2026-07-18.

Signed original held on file.

