PERCEPTION IOT

The ROI of Smart Water & Electricity Metering

A business case for multi-site commercial and multi-tenant property managers

Connected metering pays back in three ways: ongoing consumption savings, accurate per-tenant cost recovery in place of flat-rate billing, and the avoidance of high-cost water damage events. Across a multi-tenant portfolio, cost recovery is the most predictable lever and leak avoidance is the largest.

1. Consumption Savings & Cost Recovery

Lever	Typical Result	Basis
Electricity, first year after smart metering	**−3.43%**	UK Dept. for Energy Security & Net Zero / Behavioural Insights Team (June 2023): pooled supplier estimate across the GB rollout; gas −2.97%. Domestic study — treat as a floor for commercial sites with no prior visibility.
Individual-unit sub-metering, years 2–5	**12%**	NYSERDA (2016), 68 multifamily buildings moved to individual sub-metering: 12% average reduction against whole-building baseline; ~9% in year one.
Per-tenant cost recovery	**Largest single lever**	Accurate sub-metering shifts utility cost from the landlord's operating budget to the consuming tenant. In a gross-lease portfolio this is usually worth more than the consumption savings themselves.
Leak and anomaly detection	**Hours, not weeks**	The same meter that bills also alarms. Continuous flow monitoring surfaces an overnight anomaly the next morning rather than on the next quarterly bill.

Plus: the reduction NYSERDA measured came from the billing relationship, not the hardware — consumption falls once the party using the water and power is the party paying for it.

2. Cost of a Single Water Leak Event

Scenario	Cost CAD	Source
Pipe burst, VR facility — electronics and contents	**C$50,000+**	Zensurance, Canadian commercial claim
Frozen and burst pipe, residential building	**C$19,000+**	Zensurance, Canadian commercial claim
Leak from above damages tenant laser equipment (salon)	**C$17,000**	Zensurance, Canadian commercial claim
Water cooler leak, co-working space — flooring	**C$15,000+**	Zensurance, Canadian commercial claim
Average commercial water damage claim (US)	**~C$33,200**	PropertyCasualty360 (US$24,000)
Average commercial water claim, insurer data (US)	**~C$123,200**	Chubb (2019), US$89,000

Planning figure for a single multi-tenant occurrence: **C$30,000 – C$125,000** — skewing higher where sensitive equipment, several units, or business-interruption cover are involved.

3. Why This Matters

- **Water is the claim that keeps growing, and it is growing here.** Large water damage claims in Canadian high-rise buildings have **tripled since 2013**, and water claims overall have more than doubled since 2015 — against C$4–6 billion paid annually in Canadian commercial property claims. *(Gallagher Canada, via Canadian Underwriter)*
- **Most of it starts inside the building.** Roughly 75% of water losses come from plumbing, HVAC and appliance discharge — precisely the slow, overnight failures that connected metering and leak sensors catch while they are still cheap. *(Chubb / industry)*
- **Flat-rate billing is a subsidy you are paying.** Every tenant billed on a flat rate has no reason to fix a running toilet or leave the make-up air off overnight. Sub-metering ends the subsidy and funds itself doing so.

- **Insurers pay attention to leak detection.** Many carriers credit premiums where monitoring and automatic shut-off are installed — a recurring saving on top of the losses avoided.
- **The value is in the hour you find it, not the sensor.** A supply line that fails at 2 a.m. on a Saturday costs a mop and a plumber if it is caught, and a floor of remediation and a tenant claim if it is not.

4. Modelled ROI — 6 buildings, 250,000 sq ft, 24 sub-metered tenants

Line item	Annual value	Basis
Electricity reduction at 3% of energy spend	**C$15,150**	250,000 sq ft × C$2.02/sq ft (EIA CBECS 2018 at C$1.3840/US$) = C$505,000 spend; modelled below the DESNZ −3.43% measurement.
Water reduction at 9% of water spend	**C$6,565**	15,000 m³/yr *(assumed 0.06 m³/sq ft)* at C$4.8629/m³, City of Toronto Block 1 rate effective 1 Jan 2026 = C$72,944; NYSERDA year-one figure.
Tenant cost recovery across 24 sub-metered units	**C$45,600**	C$1,900 per unit per year previously absorbed in gross rent, now billed to measured consumption.
Avoided water damage event, annualised	**C$14,000**	One C$70,000 event every 5 years — the midpoint of the Section 2 planning range.
Insurance premium credit at 5%	**C$4,250**	Applied to a C$85,000 combined property and liability premium.
Total modelled annual benefit	**C$85,565**	
Deployment across 6 buildings (one-time)	**(C$55,000)**	Main and tenant meters, leak sensors, gateways, survey and installation.
Monitoring, hosting and support	**(C$21,000 / yr)**	Managed service across all 6 buildings.

Payback 11 months • Year-1 net +C$9,565 • 3-year net +C$138,695 • 3-year ROI 118%

Sensitivity: halve the cost-recovery line and drop the avoided-leak line entirely — the two a sceptical CFO will discount first — and the programme still returns C$48,765 a year, with payback at 19 months and a three-year position of +C$28,295.

> **Bottom line:** One avoided leak event (C$30,000–C$125,000) exceeds several years of metering subscription on its own. Cost recovery and consumption savings pay for the system before that event ever happens.

Sources

Consumption and cost recovery: UK Department for Energy Security & Net Zero and the Behavioural Insights Team, *Energy Supplier Review of Smart Meter Energy Consumption Impacts* (June 2023) — assets.publishing.service.gov.uk. NYSERDA, *Savings from Submetering* (August 2016), 68 multifamily buildings — nyserda.ny.gov. US EIA, *2018 Commercial Buildings Energy Consumption Survey — Key Energy Stats* — eia.gov/consumption/commercial/data/2018. City of Toronto, *Water Rates & Fees*, Block 1 rate effective 1 January 2026 — toronto.ca.

Leak and claim costs: Zensurance (Toronto), *7 Small Business Water Damage Insurance Claims* — zensurance.com; figures are Canadian claims in Canadian dollars. PropertyCasualty360 average commercial water damage claim. Chubb (2019) commercial claim data. Gallagher Canada national claims data, via *Canadian Underwriter*, "Why water damage claims cost the industry more each year than severe weather claims" (2020) — canadianunderwriter.ca.

All modelled figures are Canadian dollars. US-sourced per-event costs are converted at C$1.3840 per US$1 (Bank of Canada, 4 September 2026); Canadian-sourced claims are shown as published. Sourced figures are published averages and study results. Portfolio size, floor area, water intensity, tenant count, cost-recovery per unit, event frequency, insurance premium and programme pricing in Section 4 are stated modelling assumptions for illustrative business-case purposes; actual results vary by building age, lease structure, occupancy, utility rates and insurer.