

The Real Economics of Green IT

Why sustainable technology is a cost, compliance and capacity question — not a CSR garnish. For CFOs, CIOs and boards in Singapore and APAC.

Michael Kennedy · Former Group CIO, Robert Walters · Singapore / Global · July 2026

WHY NOW

Three pressures are converging on the same desk.

Cost: energy is now a first-order line in technology spend, and AI is inflating it. **Compliance:** climate reporting is mandatory for Singapore-listed companies and arriving for large private ones — and technology is inside the numbers. **Capacity:** data-centre power is constrained across APAC; efficiency is becoming the price of growth itself.

The good news is unusual for a compliance story: almost everything that reduces IT emissions also reduces IT cost. Green IT done properly is not a programme you fund — it is discipline that pays. This guide accompanies the essay series *The Duty of Care*: what the duty looks like when the resource is the planet, not the person.

THE MEASUREMENT PROBLEM

Where IT emissions actually sit

Most IT sustainability conversations die in the first ten minutes because nobody can say where the emissions are counted. Here is the map.

- Owned infrastructure** — your data centres and server rooms sit in **Scope 2** (purchased electricity). The easiest to measure; usually the smallest share by now.
- Cloud** — sits in **Scope 3** (purchased services). Migrating to cloud does not delete emissions; it moves them to a category most organisations measure worst.
- End-user devices** — the embodied carbon of laptops and phones usually exceeds their lifetime running emissions. Procurement and refresh cycles matter more than power settings.
- Vendors and SaaS** — Scope 3 again. Your suppliers' AI features are your supply-chain emissions.

The trap to avoid:

- Declaring victory on Scope 2 by moving everything into cloud — while Scope 3 quietly balloons and remains unmeasured. Auditors and, from 2029, assurance providers will look exactly there.

THE AI QUESTION

Approving an AI strategy is approving an energy trajectory

The intersection almost nobody governs: AI adoption is an energy decision, made by people who rarely see the energy bill.

- Ask for the energy and cost profile of AI use cases at approval — inference at scale, not just training, is where the bill accumulates.
- Model choice is an efficiency lever: a small model that does the job beats a frontier model that impresses. Route by task, not by fashion.
- Region and provider choice change the carbon answer materially — grid intensity varies several-fold across APAC regions.
- Put AI workloads inside the same FinOps discipline as everything else. Ungoverned AI spend is ungoverned energy.

THE ECONOMICS

Six levers that cut cost and carbon together

| Lever | What it looks like | Pays how |
|---|---|---|
| Rightsizing & zombie hunting | Kill idle instances, oversized VMs, orphaned storage and the environments nobody will admit to owning. | Direct cloud-bill reduction; typically the fastest win. |
| Storage hygiene | Tiering, deduplication, retention actually enforced. Data kept “just in case” is cost and carbon with no return — and usually a compliance liability too. | Storage spend and backup windows shrink together. |
| Region & scheduling | Place flexible workloads in cleaner-grid regions; schedule batch work off-peak. | Often cheaper tariffs and lower reported intensity. |

| Lever | What it looks like | Pays how |
|--------------------------|---|---|
| Device lifecycle | Extend refresh cycles where performance allows; buy refurbished where sensible; measure embodied carbon in procurement. | Capex deferred; largest single Green IT lever for many firms. |
| Consolidation | Fewer data centres, fewer vendors, fewer overlapping tools — the operating-model work that also simplifies everything else. | Structural run-cost reduction, not one-off savings. |
| FinOps = GreenOps | One discipline, two dashboards: every optimisation report shows £ and CO2e side by side. | Sustainability reporting becomes a by-product, not a project. |

THE REPORTING LAYER

What the rules require — Singapore first

Status as at July 2026. Timelines were extended in August 2025 to give companies room to build capability — room worth using.

- All SGX-listed companies:** Scope 1 and 2 GHG reporting from FY2025 onwards.
- STI constituents:** ISSB-aligned climate disclosures from FY2025; **Scope 3 from FY2026** — i.e. this financial year.
- Non-STI listed:** full ISSB-aligned disclosure from FY2028 (market cap \geq S\$1bn) or FY2030 ($<$ S\$1bn).
- External assurance** on Scope 1 and 2: listed companies from 2029; large non-listed companies follow later.
- EU exposure:** CSRD for in-scope European entities, and EU data-centre energy reporting under the Energy Efficiency Directive.
- The technical spine:** GHG Protocol for scopes; the Green Software Foundation's SCI if you want an engineering-grade intensity metric.

The point for CIOs: when Scope 3 reporting arrives, IT is suddenly material — cloud, devices and vendors all sit there. The CIO who arrives with the numbers, and a costed reduction plan, turns a compliance burden into an executive contribution.

GETTING STARTED

The first 90 days

- Establish the baseline: one page — Scope 2 (owned), Scope 3 (cloud, devices, vendors), and the gaps.
- Get cloud emissions data flowing from your providers' carbon tools into FinOps reporting.
- Run one zombie-hunting sweep and bank the savings — fund the programme from its own findings.
- Add energy and carbon lines to AI use-case approvals.
- Extend one device refresh cycle deliberately and measure the effect.
- Add carbon questions to the next three vendor renewals.
- Agree with the CFO how IT lands in the sustainability report — before the auditors ask.

ABOUT THE AUTHOR

Michael Kennedy is the founder of Kennedy Advisory and former Group CIO of Robert Walters, where he led a 150+ person technology organisation across 14 countries, delivered £3M+ in annualised savings, achieved ISO/IEC 27001 across all jurisdictions and took AI safely into production. He is CISSP certified and based in Singapore with a global remit.

Working through this for real?

Independent judgement on technology, cyber risk and AI — as an interim or fractional CIO, or at the board table. Engagements start with a conversation, not a proposal.

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