Carbon as an SLO: adding emissions to your observability stack

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Teams already track reliability with service-level objectives. The same habit can apply to carbon: set a target, measure it with the rest of your telemetry and treat a regression as a defect.

TL;DR The short version

- Carbon can be handled like reliability: set a target, measure it with your other telemetry and treat a regression as a defect.
- Energy and cloud cost are closely linked, so many efficiency changes help both.
- Start with one service and one carbon measure on the existing dashboard.

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What it looks like

- A carbon-per-unit measure, calculated from resource use and grid intensity.
- A target for each service, reviewed as part of the normal cycle.
- Dashboards that show it next to latency and cost.

Joined-up with cost

Energy and cloud cost are closely linked, so many efficiency changes help both. Where they diverge, make the trade-off visible rather than optimising one in secret.

How to start

1. Choose one service and one carbon measure.
2. Add it to the existing dashboard.
3. Set a modest target and watch for a quarter.
4. Add it to design reviews for new work.

Related credential: Clean Software Telemetry Practitioner. Explore the exam facts and syllabus.

Sources and further reading

1. Green Software Foundation. Software Carbon Intensity (SCI) Specification. sci.greensoftware.foundation.

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