## Resource sheet:

# Optimising digital operations for sustainability.

This is not a definitive list of links but ones I have found useful and informative. If you find others, please mail me so I can update this sheet for everyone.

## **Measurement tools**

**Google Lighthouse:** is an open-source, automated tool for improving the quality of web pages. You can run it against any web page, public or requiring authentication. It has audits for performance, accessibility, progressive web apps, SEO, and more.

https://chrome.google.com/webstore/detail/lighthouse/blipmdconlkpinefehnmjammfjpmpbjk

**Kinsta:** provides insights on slow PHP transactions, MySQL queries, external requests, and more. This APM was built specifically for monitoring WordPress sites, so you can use it to quickly identify problematic plugins and themes. The tool is free. <a href="https://kinsta.com/apm-tool/">https://kinsta.com/apm-tool/</a>

**Datadog:** offers full-stack visibility into applications, servers, and cloud-based platforms. It works across a wide range of products, using a built-in integration system to make connecting easy. Datadog features powerful user experience monitoring, to keep an eye on network timing, transactions, and more. It also provides notifications of problems across the entire software stack. The best feature is how clearly it visualizes performance, through a customisable dashboard that can configure a personal monitoring system.

https://www.datadoghq.com/

**New Relic:** is a powerful APM tool that bills itself as an "observability platform". It lives up to that promise: one of its strongest features is the extremely clear visualization it offers of your entire software stack.

https://newrelic.com/

**Blackfire.io:** profiling technology collect function-call-level metrics that let developers understand exactly how their code behaves. Through time-sequence and behavioural visualisations, code can be analysed to understand how it consumes time, memory and network resources, and helps identify SQL queries and HTTP requests. <a href="https://www.blackfire.io/">https://www.blackfire.io/</a>



www.william-reed.com

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## **Carbon Calculators**

Greenly:

https://greenly.earth/en-gb

Watershed:

https://watershed.com/en-GB

Sustain Life:

https://www.sustain

**Wholegrain Digital:** 

https://www.websitecarbon.com/

# Design guides

# Sustainable Web design ebook:

https://abookapart.com/products/sustainable-web-design/

## **Culturehive:**

https://www.culturehive.co.uk/resources/sustainable-web-design-how-to-reduce-your-websites-carbon-footprint/

## Climateaction.tech:

https://climateaction.tech/actions/reduce-the-carbon-emissions-of-your-website/

## **Eco Friendly Web Alliance:**

https://ecofriendlyweb.org/eco-friendly-web-design-how-to-reduce-your-websites-carbon-footprint/



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## **Useful resources**

**Electricity Maps:** provides actionable electricity data for more than 160 regions. We help businesses more effectively reduce their emissions and enable products and services to differentiate their offerings by empowering end-users to be more carbon aware. https://www.electricitymaps.com/

**Energy Monitor:** Track power production across the EU 27 with Energy Monitor's electricity generation map, updated with live electricity data every hour. https://www.energymonitor.ai/sectors/power/live-eu-electricity-generation-map/

**Greenhouse Gas Protocol:** GHG Protocol establishes comprehensive global standardised frameworks to measure and manage greenhouse gas (GHG) emissions from private and public sector operations, value chains and mitigation actions. https://ghqprotocol.org/

**Good Business:** A market leading sustainability agency and has worked with a lot of PPA members in the UK to measure carbon footprints and advise on sustainability strategy <a href="https://good.business/">https://good.business/</a>

**The Carbon Brief:** Is a UK-based website covering the latest developments in climate science, climate policy and energy policy. It specialises in clear, data-driven articles and graphics to help improve the understanding of climate change, both in terms of the science and the policy response. It publishes a wide range of content, including science explainers, interviews, analysis and factchecks, as well as daily and weekly email summaries of newspaper and online coverage. <a href="https://www.carbonbrief.org/">https://www.carbonbrief.org/</a>

**Business Green:** A UK website providing articles, insights and information on the green economy and environmental issues.

https://www.businessgreen.com/



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