



WEB SUSTAINABILITY POCKET GUIDE

The internet's environmental impact keeps growing, but we can mitigate this by creating digital products and services that are efficient, easy to use, and powered by renewable energy. Follow this checklist to ensure your own website or digital product is as people- and planet-friendly as it can be. In this case, better for people is also better for planet.

Did you know that...

20 billion

Estimated number of devices that will be connected to the internet by 2020.



One **Google search** uses as much energy as turning on a **60W light bulb** for **17 seconds**.

The **internet** generates more **greenhouse gases** than the **airline industry**.



If the **internet** were a **country**, it would rank **sixth** in the world for its **electricity usage**.



< 3%

of sites are powered by **renewable energy**.

Findability

Content that is easy to find uses less resources. By following SEO best practices, you can help get the right users to your content faster. Try doing the following:

- Optimize each page of your site for a unique word or keyphrase that your target customers use in search queries.
- Optimize page metadata—descriptions, image alt tags, title/heading tags, and so on—just as you would page content.
- Make sure each page clearly answers a specific question related to user needs in the most comprehensive and actionable way possible.
- Similarly, make sure that content is easily ‘scannable’ by using bulleted lists, images with captions, pull quotes, ample paragraphs, sub-headings, etc .
- If you’re using WordPress, install the Yoast SEO plugin to streamline the on-page SEO process.
- Build natural, high-quality inbound links: Write guest posts, appear on podcasts, and offer site pages as resources to high-ranking websites and media outlets that are a good fit for your content.
- Share your pages on targeted social media channels, within groups, and so on. Answer questions on these channels whenever possible.
- Structure your site’s information architecture so that it is intuitive for target users. Tree-test it with real users.
- Add ‘signposts’ to related content users might be interested in.
- Finally, add a search field to every page of your own site to help people quickly find what they need.

Usability

People-friendly websites that help users accomplish tasks quickly can be planet-friendly as well. The faster your users can complete tasks, the less resources and energy they use. To optimize usability, do these things:

- Employ responsive design techniques for all pages to reduce pinching and zooming on mobile devices.
- Reduce web form clutter by adding only necessary fields.
- Run usability tests on key features to ensure tasks are as intuitive and easy to complete as possible.
- Avoid proprietary technologies that don’t work across devices and platforms or ask users to install plugins.
- Don’t put intrusive pop-up ads or pop-ups of any kind on your pages.
- Avoid autoplay on any media, such as embedded audio or video.
- Avoid ‘dark patterns’: don’t use any sort of deceptive trickery to fool users into signing up, buying additional items, and so on.
- Don’t use vague button text like ‘Submit’ or ‘Read More’. Clearly label buttons with terms relevant to their purpose.

Performance Optimization

Website page speed is a known factor in abandonment rates—studies have shown that the majority of users will leave a page that doesn't load in under two seconds. It's also a ranking factor for Google's search algorithm, meaning a well-optimized site ranks better in search results. Plus, sites that load faster use less energy. To optimize your site for performance, try the following:

- Create a page weight budget based on target users—500 kb to 750 kb per page, for example—and make sure all pages stay within that budget.
- Compress all images for smallest file size without sacrificing image quality.
- Avoid image carousels, video backgrounds, and other assets that cause page bloat without adding value.
- Avoid multiple landing page redirects.
- Enable GZIP compression for all HTTP requests.
- Minify your HTML, CSS, and JavaScript to remove any unnecessary data in your code.
- Use a single CSS sprite for all common interface icons, graphics, logos, etc.
- Optimize CSS delivery so huge single files don't have to load for every page.
- Similarly, move or get rid of render-blocking JavaScript files that slow page load.
- Use a content delivery network or shared library for common site elements such as images and scripts.
- Don't install tracking software that slows down page loads.
- Improve server response time to under 200ms.

For a complete list of optimization techniques, look at [Google's PageSpeed Insight Rules](#).

Green Hosting

Finally, the most important thing you can do to reduce your website's environmental impact is to power it with renewable energy. Using a green web host can drastically cut down on CO2 emissions related to your site's performance.

- To find a green host near you, search The Green Web Foundation's [hosting directory](#).
- Migrate your site and products to the new provider.
- For a rough estimate of how much CO2 your website's homepage emits, check out Wholegrain Digital's [Website Carbon calculator](#).

Need help optimizing your site for sustainability, usability, and performance? [Give us a shout](#). We'd be happy to help.