RadioDNS Sustainability Report

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Project Office

When looking at the amount of carbon we use at RadioDNS, we first looked at our baseline for consumption in 2021. We did this by accounting for the carbon that the 2 people who work in the Project Office consume in order for Project Office to function. We don't maintain a physical office. This came to 12.32 tonnes in total, including travel for planned events in 2021.

Travel

Travel is our primary source of carbon generation. Day-to-day activities as well as travel to events accounted for **12.3 tonnes.** We have always worked remotely, so there are no journeys for our day-to-day work.

Ordinarily, there would be more travel to account for, and looking forward to 2022 we would expect this to rise to more realistic levels of activity, and a potential for around 30 tonnes of CO_2 generation a year.

Technical Services

We use Amazon Web Services and Google Workspace for our cloud computing and DNS services. Amazon is on the path to being Zero Carbon by 2040, and Google claims carbon neutrality since 2007, and a plan for Carbon Zero by 2030.

Other services

We bank with an ethical bank, Triodos, that is a certified B Corporation. We rarely print marketing materials, and any exhibition displays are used numerous times or hired.

Hybrid Radio

Quantifying the positive impact that hybrid radio can make on sustainability is less easy to quantify. Helpfully, BBC R&D have produced a report ("The energy footprint of BBC radio services: now and in the future"[1]) investigating the sustainability of various forms of distribution of radio (and TV), which concluded that:

Per device-hour, we determine DAB to be the least energy-intensive platform (9.3 Wh/device-hour) and DTV radio services to be the most (80.6 Wh/device-hour). Of all future scenarios modelled, we estimate that switching off AM, FM and DTV radio services, and retaining DAB and IP, leads to the largest energy saving – almost twice as much as moving to IP-only distribution.

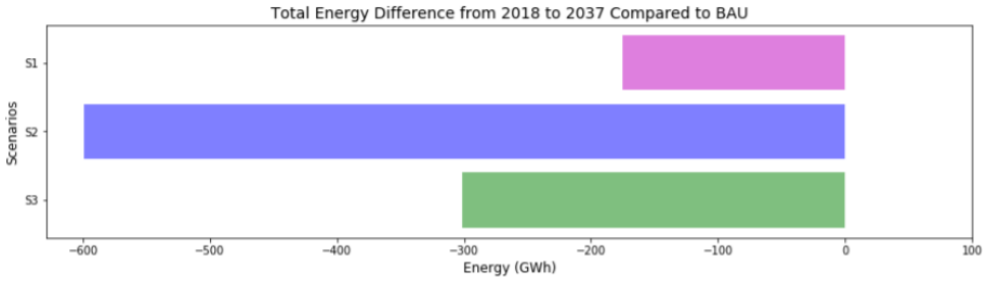

Figure 11: Estimated mean annual energy saving for each scenario compared to BAU from switch-off to 2037

Scenario 1 - Digital Radio Broadcasting only
Scenario 2 - DAB + IP (Hybrid)
Scenario 3 - IP only

Open source is an efficient way of developing functionality, as it concentrates effort and reduces duplication, which means it can be delivered at scale with fewer resources and less development time.

Summary

We have to balance our own pathway to sustainability with accelerating the uptake of hybrid radio, which will have a far greater benefit to sustainability globally.

We have taken the best practical steps towards sustainability now, making it an active consideration when choosing suppliers and partners. Travel remains both our singular largest contribution to CO_2 emissions, but also a

[1]https://www.bbc.co.uk/rd/publications/research-393-energy-footprint-bbc-radio-environment-impact-sustainability

critical part of our role in meeting, educating and supporting people in developing hybrid radio. We will take practical steps to minimise that, for example by preferring lower emission travel (such as rail, public transport over flights and private vehicles).

This report will be reviewed in 2023.