

GREENER
PRACTICE



Future-proofing your Practice

David Cummins

Contents

- ▶ Solar panels
- ▶ Device switch-off
- ▶ LED lights
- ▶ Screen brightness
- ▶ Blue roll for examinations beds
- ▶ Re-usable tourniquets
- ▶ Miscellaneous (Kettles/paper/re-usable sharps bins/plastic recycling)

Solar panels

- ▶ 10,000 patient GP surgery can spend £15-35,000 on energy, annually
- ▶ Solar panels can reduce electricity bills and carbon footprint
- ▶ Increase energy self-sufficiency: System can include battery storage - useful during a power cut!

Powering up sustainability

Installing solar panels in General Practice



<https://boost.org.uk/powering-up-sustainability-installing-solar-panels-in-general-practice/>

Rockcliffe Court Surgery

- ▶ Rockcliffe Court Surgery 2023. Installation cost: **£20,000**
- ▶ 32 solar panels and EV chargers (unused electricity)
- ▶ Hot water heating & back-up battery
- ▶ Electricity generated daily (March) = 52 kW = 50% more than the daily requirement
- ▶ Estimated energy costs without solar/10 years = **£200,000**
- ▶ Estimated energy costs/10 years with solar = **£140,000**

A GP Solar panel case study - at Rockcliffe Court Surgery

Rockcliffe Court Surgery, on the outskirts of Darlington, started thinking about getting solar panels for several reasons. Firstly, to reduce the practice electricity bill. The previous electricity contract was coming to an end and the predicted price rise would be unaffordable in the short, medium and longer term. Secondly, the senior partner has knowledge of the benefits of solar and owns an EV car. Thirdly, was to enhance the practices environmental credentials.



The annual electricity use by the practice was around 20,000 kWh. Anticipated annual electricity bill for 2023 post energy price rise : £20k

The practice had already examined their electricity use and reduced the annual amount used through a combination of staff behaviour (such as turning off unused equipment) and tech solutions (such as LED bulbs).

Solar Panels

Installed - Dec 2022 by DMH Electrical and Renewables LTD
Size - 13.1kwp
Number of panels – 32
Installation costs - £20k Including solar panels, smart EV car charger, inverter.



Electricity generation

Actual results so far

In early March 2023, the amount of electricity generated on a day was 52.8kW. This covered the total electricity used on the same day of 37.5kW. Excess generated electricity was used to charge staff EV cars.

Expected electricity generation

Over the year, electricity generation equating to 50% of electricity used (10.5MW) is expected. The majority will be between March and October, so the actual financial savings may be less than 50% of the total annual electricity bill. However, excess electricity can be stored in batteries, EV cars or sold back to the grid.

10-year costs (excluding price rises/inflation, assuming 40% reduction in bill)

	without solar (£)	with solar (£)
Annual energy used	20k	12k
For 10 years	200k	120k
Installation costs	-	20k
Total (for 10 years)	200k	140k
Total (for 20 years)	400k	260k

<https://img1.wsimg.com/blobby/go/15947d70-9404-4d54-921d-79cf246e9dc0/downloads/5e13c6b1-c559-4500-bb42-64d4c6abe3ec/Rockcliffe%20Solar%20panel%20case%20study.pdf?ver=1740571001704>

Device switch off

- ▶ Understandably, staff have a habit of keeping computers turned on!
- ▶ Switching off computers/printers/TVs/monitors at the wall at end of day saves £££
- ▶ Consider reminder stickers!
- ▶ Imperial College Healthcare NHS Trust used software to turn off idle computers overnight - savings of £440,000 in one year
- ▶ **A GP Practice in Gloucestershire (~10000 patients) created a new culture of turning devices off at the wall when not in use - £1200 savings/year.**

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Massive energy and cost savings via PC Power down project at Imperial College Hospitals

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Veena Aggarwal 4 weeks ago

Hi all,

You may be interested in replicating this case study from Imperial College hospitals trust. We are looking at doing it at Kingston. I was sent this write up by a colleague who asked me to share it here. They installed software to turn off computers that are usually idle out of hours. It saved an estimated 520 tonnes of CO2 and £440,000 in one year for this large trust. It has been done in a way that does not inconvenience staff, as the PCs can be rebooted automatically for when needed, as well for any security updates required.

The full write up is attached.

Add tag

[Saving planet and pounds one computer at a time_ how turning off computers is cutting carbon and reducing wasted electricity \(1\).pdf](#)



6

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ICB message on device switch-off

- ▶ **To help practices reduce energy costs and carbon emissions, the ICB recommends switching off computers when they are not in use overnight and on weekends.**
- ▶ Users may have noticed that this can lead to a delay the next morning if an update has occurred overnight. **Routine updates are scheduled to occur during the week of the third Tuesday each month**, with installations taking place at any point during that week. Typically, this delay is around 10 minutes but can sometimes extend to 30 minutes. For machines where such delays in the morning would be highly disruptive, we recommend leaving them on overnight during the designated update weekdays but powering down at other times.
- ▶ **Occasionally, urgent updates may be needed outside the usual schedule, in which case we will send broader communications.**
- ▶ By adopting this approach, practices can achieve significant savings on energy consumption, and together, we can make a positive impact on reducing carbon emissions.

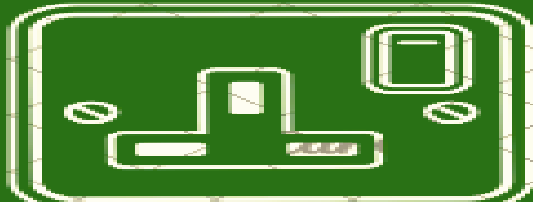


THE BIG TURN OFF

Before you ditch, turn off the switch!

The Green Team are trying to encourage all staff to turn off your sockets at the end of each day!

We have placed **red** stickers on switches that need to stay on, so we can get everything else turned off!



LED lights and smart energy tariffs

- ▶ Turn lights off when not in use!
- ▶ Change to LED lights
 - ▶ 90% less electricity
 - ▶ last x25 longer
 - ▶ Could save thousands of £££ in lighting costs annually
- ▶ Consider change to sensor lighting to avoid lights being left on out of hours/at weekends.
- ▶ Surrey & Sussex NHS Trust: anticipated savings of £35,000 annually following switch to LED
- ▶ **Energy tariffs**
 - ▶ Check if your Practice uses **estimated** energy bills or if you receive a detailed breakdown?
 - ▶ Are you on the most cost-efficient tariff for your Practice?
 - ▶ Switching to a Smart Energy Tariff can save 20%

Screen brightness

- ▶ Reduce screen brightness to 50%
- ▶ Reducing brightness from 100% to 70% can save up to 20% of the energy used by the monitor
- ▶ **30 monitors in a hospital ward and library were reduced to 40% brightness saving £281 annually.** Consultants keen to scale up to all 10,000 computer monitors (~£100,000 savings)
- ▶ A staff survey demonstrated no resistance to the intervention or detrimental impact on screen visibility or patient care
- ▶ <https://www.rcp.ac.uk/policy-and-campaigns/policy-documents/bright-ideas-from-medical-students-on-clinical-placements>

Reducing blue roll








- ▶ An average GP surgery can spend up to £500 annually on blue roll
- ▶ Blue roll for examination tables - not strictly necessary for infection prevention
- ▶ *‘The Infection Control team at Northumbria Healthcare NHS Foundation Trust have advised Primary Care that the use of blue bed roll is not routinely needed for every patient. Instead, examination beds can be wiped down between patients with Tristel Fuse or a Clinell wipe. Some examinations will still warrant blue roll but it's likely we will not need to use as much of it.’*
- ▶ <https://bmjopenquality.bmj.com/content/13/4/e002838>

A LOCAL SUSTAINABILITY INITIATIVE TO END THE INAPPROPRIATE USE OF COUCH ROLL



COUCH TO £7K

BY ONLY USING COUCH ROLL FOR 'WET' EXAMINATIONS, WE CAN ALL HELP TO:

-  **Reduce our carbon emissions**
-  **Reduce our procurement and waste costs**
-  **Raise awareness among our multi-disciplinary team**
-  **Reassure patients that correct hygiene standards are being met**
-  **Help to preserve our resources**

YORK'S GP SURGERIES SPENT OVER £7K ON COUCH ROLL IN 2023!

Our examination couches are made from highly resistant, wipeable materials and should be cleaned between each patient use.

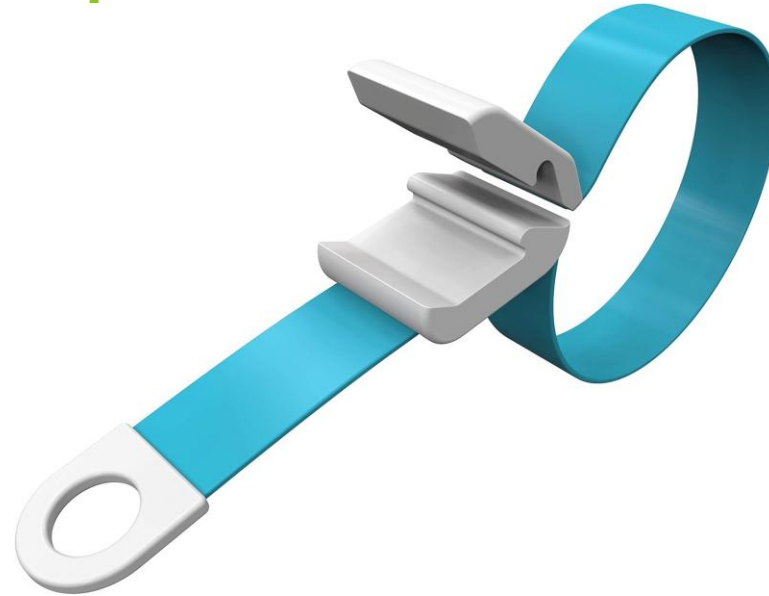
But there is currently no evidence to suggest that couch roll paper itself provides protection against transmission of infections.

Adhering to good hand hygiene and following appropriate disinfection processes are the most effective ways to protect patients and staff from cross-infections.



Reusable tourniquets

- ▶ 60 million single-use tourniquets annually
- ▶ DaisyGrip is a Re-usable tourniquet
- ▶ Approved by IPC
- ▶ Cleaned between uses
- ▶ Preferred by patients
- ▶ Lasts for 10,000 uses OR two years
- ▶ ~ £25 per tourniquet
- ▶ Northumbria Healthcare theatres used 504,000 single-use tourniquets in 23/24. Switching to DaisyGrip led to estimated savings of £40,000.
- ▶ Sheffield & Glasgow Hospitals - similar stories
- ▶ [boost.org.uk%2Flunch-learn-recording-re-useable-tourniquets-for-sustainable-phlebotomy](https://boost.org.uk/2Flunch-learn-recording-re-useable-tourniquets-for-sustainable-phlebotomy)



Only boil what you need!



- ▶ 100 million cups of tea are drunk in Britain every year!
- ▶ 8 in 10 people admit to overfilling the kettle
- ▶ Overfilling the kettle adds £900,000 a day to the nation's energy bill!
- ▶ If you boil a full kettle four times a day, it will take 10 minutes to boil and will cost **£58 a year**
- ▶ If you only fill the kettle for two cups each time you boil it, it will take two minutes to boil and cost **£11 per year.**

Re-usable sharps bins

- ▶ In use for 20 + years in Newcastle and Sunderland hospitals
- ▶ Introduced with a predicted increase in costs but ended up being a saving due to better fill ratios
- ▶ Could this be done in Primary Care?
- ▶ What are contractual arrangements for your PCN?
- ▶ Are you tied into a larger contract with the ICB?
- ▶ CVS (veterinary services) introduced reusable sharps bins across all UK Practices. Re-usable up to 200 times. **Saves 21,000 single use bins a year from incineration!**



Miscellaneous

- ▶ Reducing paper burden - do home visit summaries/back-up lists need to be printed?
 - ▶ Is double-sided printing in use?
- ▶ Consider air source heat pumps which can lead to lower longer-term running costs
- ▶ Promotion of oral tablet medications where possible, instead of liquid or intramuscular equivalents - **B12 injections**
- ▶ **ICB Devon only order what you need - £475000 savings. 2% reduction in meds requests.**
- ▶ Active travel e.g. Bike to Work scheme
- ▶ Walking consultations with patients in green space
- ▶ District Nurse house visit on eBikes (Dorset and London)
 - ▶ action on air pollution/reduced CO2
- ▶ **Focus less on energy message and more on provision of care**

Summary

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Thank you!

