

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
UK & Ireland

ENERGY USE HINTS & TIPS

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ABOUT FCSI

The Foodservice Consultants Society International (FCSI) is the respected professional organisation for independent advisors who offer design and management consulting services for the foodservice and hospitality industry across the world.

Our experienced members offer innovative and impartial hospitality consultancy advice. This could be on a wide range of hospitality and catering subjects including hygiene, foodservice strategy, benchmarking, menu planning, project management or competitive tendering. An FCSI consultant can help with specifying catering equipment or designing a new kitchen, restaurant or retail food concept.

FCSI professional members provide consultancy to a wide range of foodservice clients, from project managers and architects to facilities managers and caterers working on anything from large hotels or restaurants to workplaces, retail units, hospitals, schools, and universities.

www.fcsi.org.uk

AUDIT

Do a brief energy audit of your kitchen looking at gas, water and electricity usage.

Create a map of where power is typically used in your kitchen and when and how it is being wasted.

Review your recent electricity and gas bills to get an idea of how much energy you are currently using. You can then track the savings that you make when you implement changes (Speak to your premises team to see if you are separately metered and if not ask about the overall utilities bill to at least get a picture of costs so that you may be able to estimate savings).

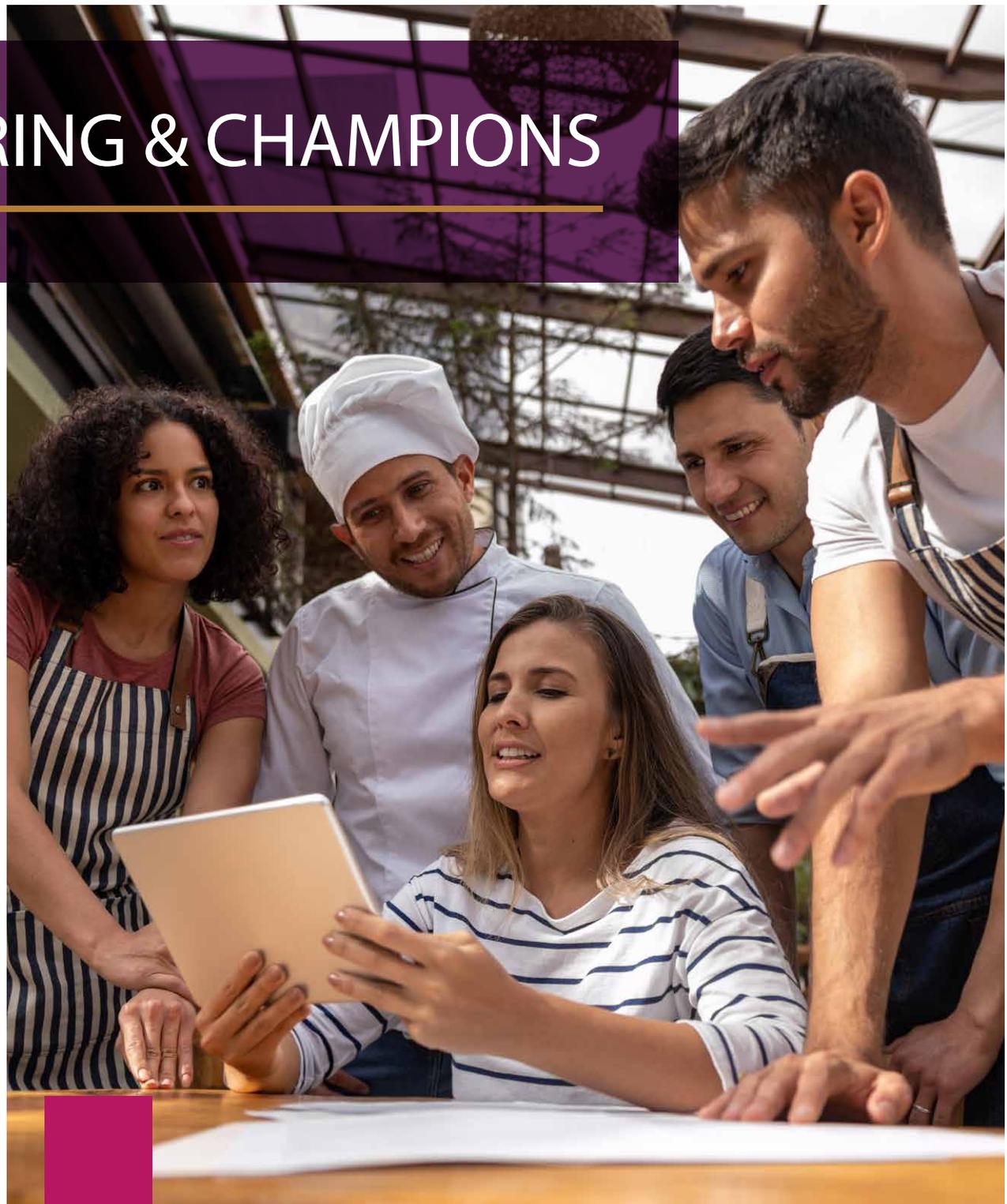
Once a plan is in place, make sure you communicate this to your staff.



TRAINING, MONITORING & CHAMPIONS

Train staff on new procedures and consider putting the information into a small booklet together with all the key information.

- Consider using weekly checklists to record information - this is also a great piece of collateral to show client/premises managers that action is being taken.
- Consider making members of staff 'Energy Champions' to ensure correct protocols are adhered to.
- Many appliances continue to draw electricity from the socket even when not in use. Not all equipment can be turned off, but provide training and put signage in appropriate places to prompt staff to unplug equipment that can be switched off after service.



ENERGY WATCH

- **Lights need to be turned off** when rooms are not in use.
- Before periods of closure move stocks to one fridge/ freezer and **switch off un-used cabinets**.
- Heating trolleys, serveries and chiller cabinets - check manufacturers guidelines on **heating up time and stick to these** as opposed to switching on first thing.
- If appropriate, switch equipment off at the mains when not in use. **Consider using timers**.
- **Extraction equipment** - use when needed, remembering to allow for dissipation of noxious gases before and after personnel are in the kitchen



COOKING WISELY

- **Defrost food in plenty of time** in the fridge before cooking.
- Consider whether any **cooking required for mis en place can double up** with the days cooking schedule.
- **Consider steaming food** and other cooking methods that are more energy efficient.
- **Use the right size saucepans** for what you need to cook and use lids.
- **Flat-bottomed cookware** allows for more contact with heat sources, which helps to more effectively heat your food.
- **Boil only the water you need.** Boiling excess water requires more power.
- **Keep hobs clean** – any food that sticks to the rings will make them less efficient.
- Each time you open the oven door, the temperature inside the oven can drop by as much as 120 degrees Celsius. If you need to check on the cooking progress of the food inside, **use the oven's lamps or use timers.**
- **Food waste is an issue**, especially plate waste. The time, effort and energy usage put into food that is put in the bin is both demoralising and a waste of money. Some plate waste is unavoidable but look at what is an acceptable level and what can be done to reduce this.



INDIRECT ENERGY & CASH



- Whilst the emphasis is on gas and electric, water and waste is also a huge factor. FOG management can significantly reduce call out and high-cost expenditure and should naturally form part of the organisations sustainability policy.
- The use of particular chemicals in washing can achieve the same hygiene outcome at lower temperatures - an easy electrical saving.
- How's the kitchen lighting? Moving to LED saves money - innovations like this probably exist in other parts of the building - how ingenious is it for these recommendations to come out of the kitchen!
- Ventilation in kitchens is a high health & safety priority. Making use of natural ventilation saves on energy and windows and doors (as long as they have adequate pest control) are obvious choices. On the flip side heat needs to be retained in buildings and good fittings and thermal controls will allow room heating to be reduced.

EQUIPMENT

- When replacing fridges, freezers, cookers and pretty much any appliance look for better energy usage options that save money.
- For any major refurbishments or new builds the use of heat recovery will allow for part of your hot water supply to be heated from a wasteful heat source e.g. passing pipework through the extraction system.
- Electrical cooking, especially induction, could be much cheaper than gas.
- Greater thermal control on equipment can automatically allow for reduced extract when the cooking line is less busy.
- Think about where equipment is located – make sure enough air can circulate to support the fans/motors.
- Chiller and freezer units in store rooms with limited air flow will benefit from added ventilation via adapting windows and doors.
- Planned Preventative Maintenance (PPM) plays a significant role in reducing the build up of scale and carbon deposits thus saving on expensive repairs. One of the most common failings in kitchens is the costly repair to fridges and freezers when they are not maintained and cleaned correctly/frequently enough.



HELP FROM MANUFACTURERS





Fri-Jado have introduced doors to their pioneering MDD range. Exclusively designed to reduce energy wastage and consumption, the doors also help to preserve the wider conditions in a front-of-house environment.

Working in conjunction with Fri-Jado's innovative 'Hot Blanket' technology, a system that uses hot air recirculation and conduction to maintain precise conditions, the doors have been shown to achieve significant cost savings over the life of an appliance.

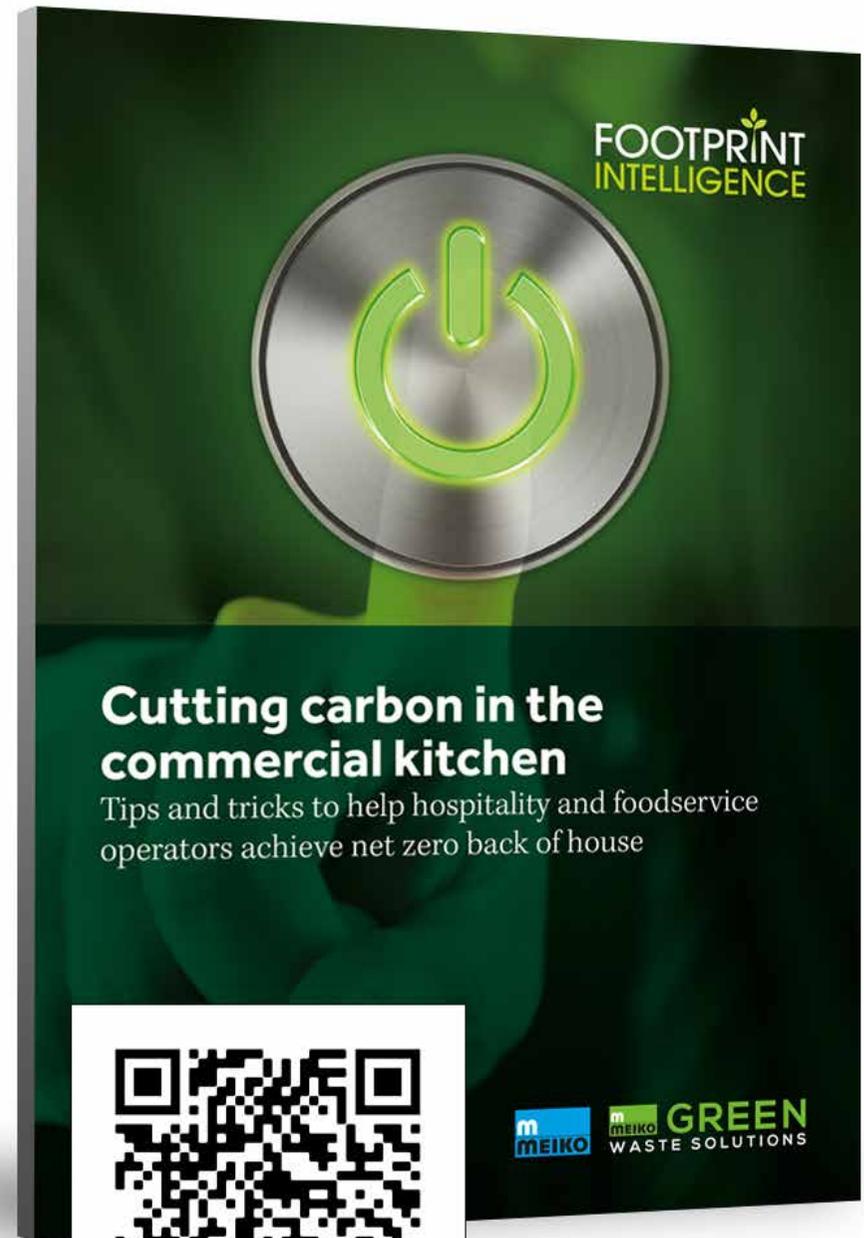
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www.fosterrefrigerator.com/en-gb/information/energytoolkit

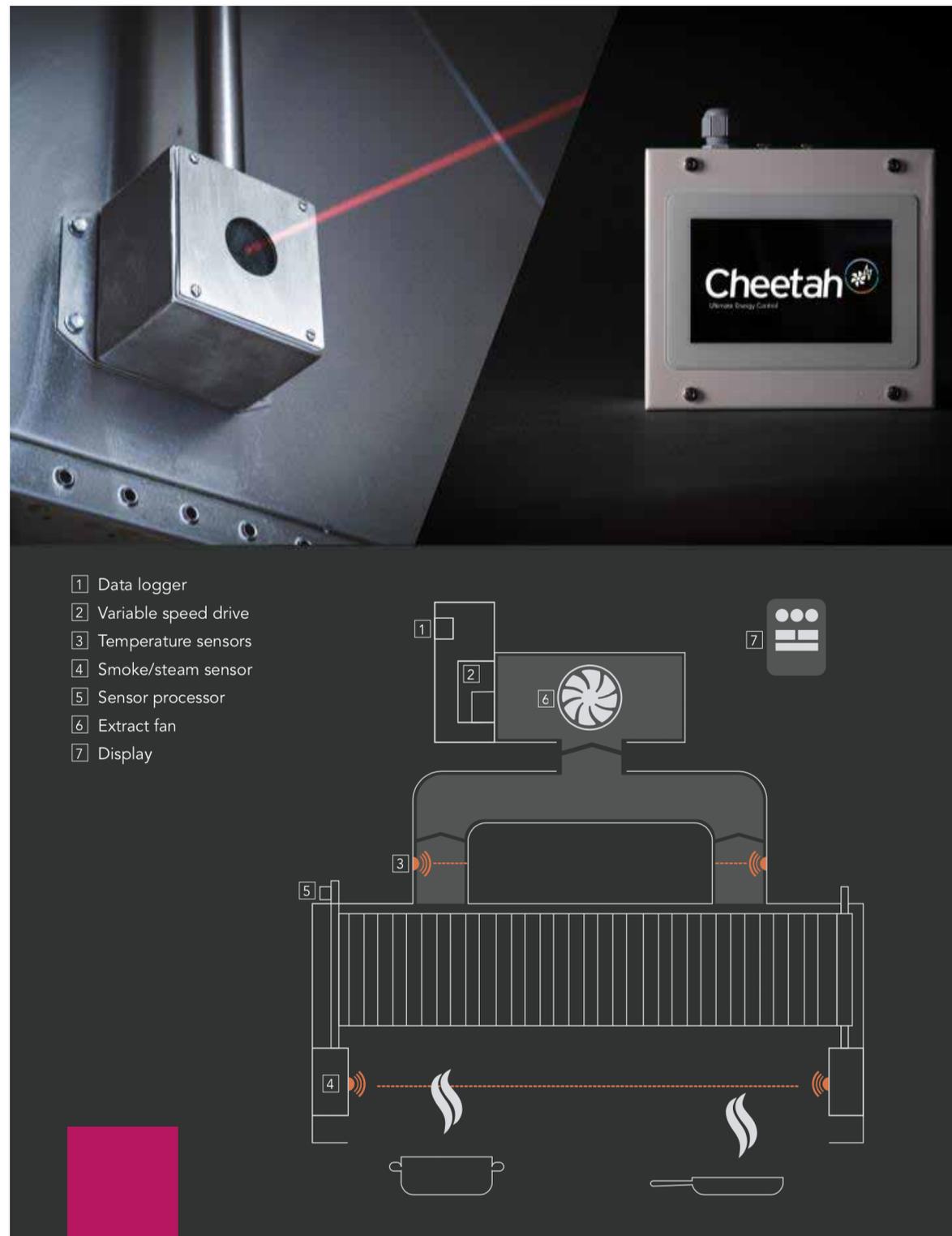
Quintex would strongly recommend controlling the energy consumption on the kitchen Extract and Supply Fans. Ventilation accounts for up to 30% of the kitchen's energy usage.

Utilize an intelligent automated control system on the fans. Otherwise, known as Demand Controlled Kitchen Ventilation. DCKV – monitors the cooking activity along the cookline, using temperature and optic sensors to detect heat, steam, and smoke.

When the activity has been detected the sensors instruct the fans to ramp up or down to be able to deal with the demand. DCKV systems like Quintex Systems, and Cheetah can save up to 80% on fan energy savings.

DCKV is currently recommended in DW172, not mandatory, although this is likely to change in the next couple of years.

www.quintex.co.uk





Shine a light on Invisible Waste. Whether it's a colossal enterprise or a smaller venture, catering operations can lead to high levels of energy consumption.

Though every caterer is likely to have sustainability on their mind as we work together to limit our environmental impact, many kitchens may remain unaware of just how much energy they could save (which the planet – and your budget – will thank you for). In fact, we know that 45% of UK decision makers leave their equipment on overnight, yet 65% don't know how much energy it uses during this time.

This is something BRITA Managed Services can help with, offering bespoke equipment maintenance plans for caterers, which includes everything from testing and monitoring water usage, providing regular reports and budgeting and much more. This can support caterers of all sizes in operating more efficiently, while saving valuable time and money.

The experts at BRITA are also on hand to provide helpful hints and tips, with the support of industry experts, equipping caterers with actionable solutions to run a more energy-efficient kitchen (it really can be as easy as flicking a switch). We can also assist with educating teams on small changes they can make when it's simply not practical to switch off essential equipment.



**Tips to keep equipment energy-efficiently,
and meal services running smoothly:**

- When you can't switch off overnight, look for equipment that has features such as energy-saving standby modes.
- Nominate a few people, and a standby for holiday/sickness cover, to ensure that equipment that can be switched off is turned off each night. Particularly consider how this will work across varying shift patterns
- Install a professional, high-quality recyclable water filter on relevant equipment, such as combi ovens and steamers, as the filter will help reduce limescale, which when left to build up inside a machine can result in longer times to reach higher temperatures (thus using more energy).
- Work with a professional partner who prioritises sustainable principles to ensure a regular preventative maintenance schedule is in place from day one.

Find out about how BRITA Managed Services can ensure your catering equipment is protected from premature breakdowns and is working as energy efficiently as possible. And for more energy-efficient tips, download our Invisible Waste toolkit packed with advice from BRITA and leading sector experts.

www.brita.co.uk





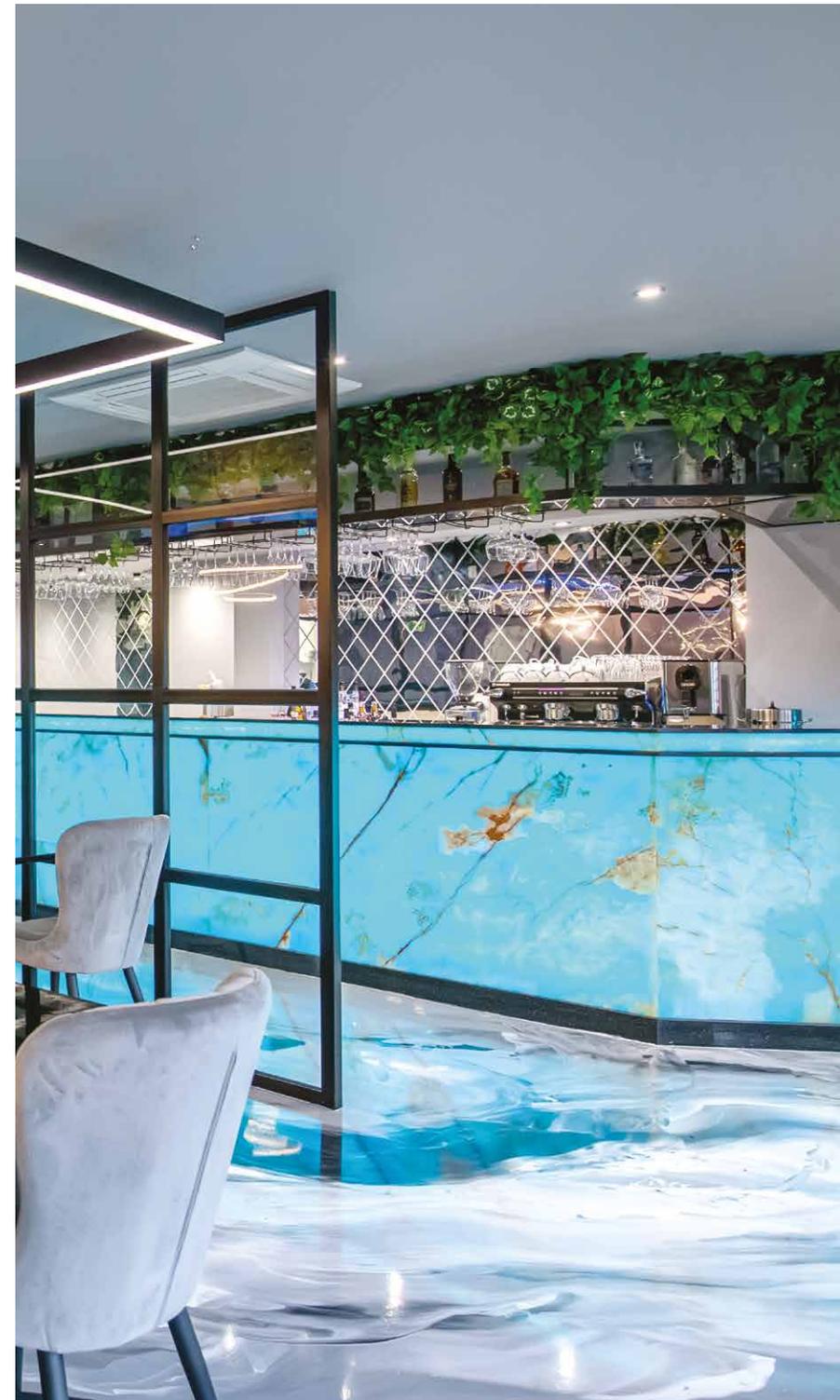
The Chiller Box team has created a series of videos designed to help those working in hospitality to save money in the kitchen.

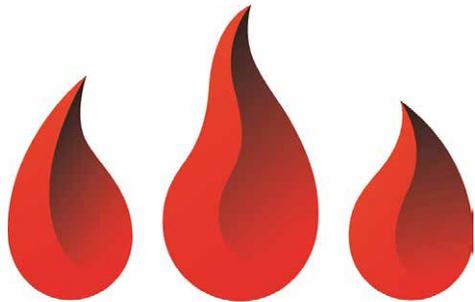
These videos have been created to make it quick and easy for chefs and caterers to get some helpful hints and tips. Make sure you check out the videos on the Chiller Box YouTube and social media channels.

In the meantime here are some do's and don'ts:

- **DO** regularly service and maintain your equipment to keep it working efficiently
- **DO** close night blinds on self serve display fridges
- **DO** empty servery or counter chilled displays if possible overnight and switch off
- **DON'T** turn on gas appliances unless you're actually going to use them
- **DON'T** leave your ventilation system running at full speed all day
- **DON'T** leave fridge or freezer doors open longer than necessary

www.chillerbox.com





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CIBSE GUIDE: TM50 ENERGY EFFICIENCY IN COMMERCIAL KITCHENS

This expanded edition of Energy Efficiency in Commercial Kitchens, written by FCSI members provides updated advice for designers, installers and operators in all areas of business and industry on how to minimise their consumption, thereby realising efficiencies in both carbon emissions and operating costs.

It was prepared with the aim of providing practical recommendations that can be applied to all commercial food service facilities, regardless of size.

Visit www.cibse.org/knowledge-research/knowledge-portal/energy-efficiency-in-commercial-kitchens-tm50-2021





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ANY QUESTIONS?

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