

Morgan Lovell

SUSTAINABLE OFFICE DESIGN CHECKLIST

YOUR STEP-BY-STEP GUIDE TO
A 'GREEN' OFFICE INTERIOR

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There are many reasons for making your office interior 'green', and if you do it right, going sustainable is as good for your business as it is for the environment.

A sustainable office interior uses less energy, and could save you at least 25% off your energy bills, year after year. And a healthy, natural work environment has been proven to raise productivity and lower absenteeism. Best of all, it doesn't have to cost you much more than a traditional office to design and build.

This checklist breaks down the complex issues into simple, easy-to-follow steps. Find out exactly what's involved, before you begin.

BEFORE WORK BEGINS

Be clear about your vision

Get your Board or key stakeholders to buy into the benefits

☐

Decide what level of sustainability you want to achieve

High

☐

Medium

☐

Average

☐

Decide what **BREEAM*** rating you want to achieve

Outstanding

☐

Excellent

☐

Very Good

☐

Good

☐

Pass

☐

Decide what **LEED*** rating you want to achieve

Platinum	<input type="checkbox"/>
Gold	<input type="checkbox"/>
Silver	<input type="checkbox"/>
Certified	<input type="checkbox"/>

Decide what **Ska*** rating you want to achieve

Gold	<input type="checkbox"/>
Silver	<input type="checkbox"/>
Bronze	<input type="checkbox"/>

Define your project objectives

Increase energy efficiency to reduce ongoing costs	<input type="checkbox"/>
Reduce carbon emissions	<input type="checkbox"/>
Comply with CRC Energy Efficiency Scheme* reporting requirements	<input type="checkbox"/>
Comply with (or exceed) building regulations (Part L, Part F)	<input type="checkbox"/>
Comply with (or exceed) CIBSE and BSRIA Guidelines	<input type="checkbox"/>
Make better use of your space	<input type="checkbox"/>
Boost productivity	<input type="checkbox"/>
Create a healthier workplace (reduce VOCs* , improve air quality)	<input type="checkbox"/>
Create or enhance your Corporate Social Responsibility programme	<input type="checkbox"/>
Communicate a sustainable ethos to staff, stakeholders and clients	<input type="checkbox"/>

Assess and compare your potential buildings for energy efficiency

Measure the CO ₂ and CO emissions of the assessed building / office space	<input type="checkbox"/>
What is the difference in CO ₂ emissions (by percentage) between your site, and a notional building that complies with 2002 building regulations?	<input type="checkbox"/>
Request a copy of the Energy Performance Certificate (EPC) and the associated building report	<input type="checkbox"/>
Choose a building that is already BREEAM (or LEED) rated	<input type="checkbox"/>
Measure the building's solar gain to assess the impact it will have on energy use	<input type="checkbox"/>
Check the compass direction of the space. Is it north or south? Assess how you can use daylight to reduce your lighting demand	<input type="checkbox"/>
What is the energy rating of the heating, ventilation and air-conditioning systems? Will they need to be replaced?	<input type="checkbox"/>
Does the space have a building management system, to enable the monitoring and control of energy use?	<input type="checkbox"/>
Is there sufficient sub-metering in place to measure and report energy use?	<input type="checkbox"/>
Are there enough public transport links to satisfy BREEAM standards?	<input type="checkbox"/>
Is there space for installation of bicycle racks and showers, to meet BREEAM standards?	<input type="checkbox"/>

DRAWING UP THE DESIGNS AND SOURCING MATERIALS

Build sustainability into the design

Design flexible floor plans, that can be rearranged and reconfigured easily in the future, and reduce churn costs ☐

Include convenient recycling points in the design ☐

Incorporate locally manufactured materials, to cut down on the energy and carbon emissions it takes to transport them ☐

Salvage and reuse as many materials that are already on-site as you can ☐

Choose carpeting manufactured from wool or recycled fibres – go for woven carpeting, with minimal backing materials (especially petroleum-based ones) ☐

Make the most of the available natural daylight

- Make sure every desk is no more than 7m from a window ☐

- Aim for 80% of the net lettable office floor area to receive natural light ☐

Include a user-friendly glare control system ☐

Use increased insulation ☐

Choose highly efficient or 'super' windows ☐

Use shading to reduce glare and heat from the sun ☐

Choose a design that uses minimal finishes, paints, wall coverings and plastering ☐

Minimise storage to encourage more electronic archiving ☐

Incorporate signs that encourage your staff to turn off equipment and lights ☐

Choose sustainable office fixtures, fittings and furniture

Are they manufactured from recycled materials? ☐

Are they recyclable at the end of their life? ☐

Opt for low VOC emitting carpets, furniture, cabling, paints and adhesives ☐

Are they made by environmentally responsible manufacturers? ☐

Are they produced locally? ☐

Does your timber come from sustainable forests? Is it **FSC*** certified? ☐

Use rapidly renewable materials wherever you can (like bamboo) ☐

Think about what you can reuse

Consider energy efficiency and carbon reduction	<input type="checkbox"/>
Select high-quality, energy efficient lighting (see next section)	<input type="checkbox"/>
Put reasonable limits on your temperature controls for day-to-day use	<input type="checkbox"/>
Use zoned energy controls, to control low-usage areas separately	<input type="checkbox"/>
Install an automatic shut-off system for equipment on standby	<input type="checkbox"/>
Choose a building management system (BMS) to automatically turn off power at night and on weekends	<input type="checkbox"/>
Install smart, energy efficient heating, ventilation and air-conditioning systems	<input type="checkbox"/>
Choose items that qualify for Enhanced Capital Allowances*	<input type="checkbox"/>
Make sure 10% of the total energy demand comes from local renewable / low emission energy sources	<input type="checkbox"/>
Install wireless sub-metering to monitor, track and reduce energy use across floors / zones	<input type="checkbox"/>
Install 'workplace footprint tracker' software to control and display energy use on dashboards to encourage building occupants to reduce their individual energy use	<input type="checkbox"/>
Install devices to manually shut down workstations when not in use	<input type="checkbox"/>
Install timers on appliances to automatically shut down equipment out-of-hours (televisions, audio-visual, etc.)	<input type="checkbox"/>
Do you qualify for interest-free loans from the Carbon Trust?	<input type="checkbox"/>

Be smart with your lighting

Make sure you meet appropriate maintained luminance levels (in lux), as per building regulations	<input type="checkbox"/>
Use zoned lighting, with separate controls	<input type="checkbox"/>
Choose light fittings with built-in daylight sensors, to make the most of your natural light	<input type="checkbox"/>
Install infrared motion detectors for automatic lighting control	<input type="checkbox"/>
Install timers to shut off lighting on weekends and at night	<input type="checkbox"/>
Fit high efficiency fluorescent lights	<input type="checkbox"/>
Consider LED lighting. A standard 40W incandescent bulb has an expected lifespan of 1,000 hours while an LED can continue to operate with reduced efficiency for more than 50,000 hours - 50 times longer than the incandescent bulb	<input type="checkbox"/>
Use task lighting. Task lighting provides better light for detail work and offers more control to individuals, reducing the need for energy-hungry overhead lighting	<input type="checkbox"/>

Waste less water

Choose low water flow fittings

• Low flush toilets	<input type="checkbox"/>
• Waterless urinals	<input type="checkbox"/>
Use rainwater or grey water systems	<input type="checkbox"/>
Fit a reliable leak detection system	<input type="checkbox"/>
Include proximity detection shut-off to the water supply for all WCs	<input type="checkbox"/>
Install point-of-source, filtered water to reduce the cost, waste and transport of bottled water	<input type="checkbox"/>

Improve air quality

Use more natural ventilation	<input type="checkbox"/>
Monitor and assess your CO ₂ emissions	<input type="checkbox"/>

Use 'low emitting' materials, without volatile chemicals

• Carpet	<input type="checkbox"/>
• Paints and adhesives	<input type="checkbox"/>
• Composite wood	<input type="checkbox"/>

DURING THE BUILD

Ensure environmental best practice on site

Manage stripped out materials, to divert waste from landfills

• Donate unwanted furniture, computers and appliances to charity	<input type="checkbox"/>
• Recycle plasterboard, carpet and other materials	<input type="checkbox"/>
• Separate waste	<input type="checkbox"/>
Follow the proper procedures to dispose of hazardous materials (with the paper trail to prove it)	<input type="checkbox"/>
Prove you have a proper recycling policy in place	<input type="checkbox"/>
Put a proper environmental management system (EMS) in place	<input type="checkbox"/>
Use only FSC certified wood	<input type="checkbox"/>
Fit out made CarbonNeutral	<input type="checkbox"/>
Set targets for energy, carbon and water use on site	<input type="checkbox"/>

AFTER YOU'VE MOVED IN

Talk to your people

Get feedback from your staff on your new office ☐

Communicate clearly about your ongoing sustainable goals and objectives

- Design presentations ☐
- Project extranet ☐
- Notice boards and company newsletters ☐
- Training on how to use all the systems (lights, heating and air, etc.) ☐

Make recycling part of everyday life

- Set up lots of convenient recycle bins for staff ☐
- Have separate recycle bins for paper, electronics, batteries, plastics, etc. ☐
- Make the case for a 'paperless' office, encouraging electronic archiving instead ☐
- Set clear policies on shutting down computers, copiers and appliances out-of-hours ☐

Make ongoing plans for the future

- Educate your staff on environmental issues, to get them personally involved ☐
- Re-assess all your systems at the end of the first year ☐
- Plan to run an energy audit every year ☐
- Put procedures in place for monitoring your energy use ☐

CHOOSING A SUSTAINABLE OFFICE DESIGN AND FIT OUT CONTRACTOR

What environmental credentials do they have?

- ISO 14001 Certified (evidence provided) ☐
- Company Environmental Policy (evidence provided) ☐
- Company environmental management system – EMS (evidence provided) ☐
- BREEAM assessors in-house ☐
- LEED accredited professionals in-house ☐
- Ska accredited assessors in-house ☐
- Environmental management team in-house (not subcontracted) ☐
- Environmental good practice on site ☐
- Do they have a documented system for separating, managing and recycling waste on site? ☐

What services are included, or on offer?

• BREEAM assessments	<input type="checkbox"/>
• LEED assessments	<input type="checkbox"/>
• Ska assessments	<input type="checkbox"/>
• Building assessments for sustainability	<input type="checkbox"/>
• Can they supply FSC certified timber through their supply chain?	<input type="checkbox"/>
• Advice on Enhanced Capital Allowances	<input type="checkbox"/>
• In-house sustainability / environmental experts	<input type="checkbox"/>
• Sourcing and procuring sustainable materials, furniture and fittings	<input type="checkbox"/>
• Environmental compliance on site	<input type="checkbox"/>
• Project extranet for project communication	<input type="checkbox"/>
• Electronic surveys for your staff	<input type="checkbox"/>
• CarbonNeutral fit outs	<input type="checkbox"/>
Do they have a track record of sustainable projects?	<input type="checkbox"/>
Do they have case studies that show successful energy reduction?	<input type="checkbox"/>

* WHAT'S THAT?

- **BREEAM®** (BRE's Environmental Assessment Method), **LEED®** (Leadership in Energy and Environmental Design's 'green building' rating system) and **Ska** are the three most recognised and authoritative systems for rating how 'green' or 'eco-friendly' a building is.
- **CRC Energy Efficiency Scheme** is a new regulatory regime that is intended to encourage large, non-energy intensive businesses (for example: retail chains, banks, local authorities and many institutional landlords) to improve their energy efficiency and reduce their carbon emissions.
- **VOCs** are volatile organic compounds, emitted by many paints, glues, wirings, carpets and other materials. They can be harmful over time.
- The Forest Stewardship Council (**FSC**) promotes environmentally appropriate, socially beneficial, and economically viable management of the world's forests.
- **Enhanced Capital Allowances** are a Government incentive, to encourage you to choose energy efficient heating, ventilation and air-conditioning equipment. You can claim back money for certain kinds of equipment.



LEED.

breeam



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