

## Server Room and Datacentre Energy Efficiency Audit Checklist

<b>Company:</b>	
<b>Contact Name:</b>	
<b>Mobile and Email:</b>	
<b>Site Address and Postcode</b>	

### Energy Efficiency General Overview

<b>Item</b>	<b>UPS System</b>	<b>Description</b>	<b>Status</b> <small>green / amber / red *</small>
<b>1</b>	Facility Space/Rooms	Review a site plan documenting any changes to the original concept and calculations made for thermal dynamics, efficiency and running costs.	-
<b>2</b>	Monitoring Systems	Review existing DCIM, EMS and metering systems, ISO5001 and ISO9001 and energy efficiency training.	-
<b>3</b>	Associated Rooms	Review each associated room including white spaces (IT), grey spaces (offices) and plant rooms for potential waste energy in terms of temperature controls, air flow (ceiling and floor tiles) and automatic/system controls.	-
<b>4</b>	Electrical Works	Review existing electrical arrangements in terms of electrical power distribution and sub-distribution into the relevant rooms including a thermal survey for 'hot spots', energy sources (traditional or renewable), local energy storage, metering and the last two years electricity bills and kWh charges.	-
<b>5</b>	Room Ambient	Review the IT room temperature (20-25°C recommended) and review for humidity, cleanliness, access security and ease of service.	-
<b>6</b>	IT Utilisation	Identify the total IT load and the number, age and utilisation of the servers on the site.	-
<b>7</b>	Server Racks	Review the racks for thermal efficiency and air flow management, hot/cold aisle arrangements, blanking plates, rear door cooling, dust build-up and cleaning arrangements.	-
<b>8</b>	Back-up Power	Identify UPS system and generator and bypass arrangements including system age, service and maintenance logs.	-
<b>9</b>	Cooling	Review and air quality and cooling arrangements in terms of systems in use and their age, calculations, monitoring and maintenance and the potential for free cooling and capture and use of exhaust heat from the building.	-
<b>10</b>	Systems	Review existing lighting, security and access arrangements in the building in terms of technology and management systems.	-

Please use this space for notes and drawings of the room noting important aspects that must be covered to ensure a safe and secure installation and on-time project delivery.

**\*Notes**

Item	Comment / Corrective Action(s) Required

**Site Drawing**

**Installation Survey**

Date / Time	Name	Company	Signature

Energy efficiency is a measurement for how much work or energy is conserved in a process. In many environments energy is lost as waste heat or noise. In a server room or datacentre environment the higher the waste energy the more the need for cooling and the higher the number of kilo-Watt hours (kWh) used leading to higher electricity bills (kWh used).

**For more information on server room and datacentre energy efficiency audits please visit:**  
<https://www.serverroomenvironments.co.uk/services/energy-efficiency-audits/>