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| **Criteria Theme - Scientific Equipment**  |
| L033  | Equipment that can be is generally turned off or powered down when not in use, together with related devices (e.g. AC/DC converters).  | Scientific equipment can be a significant proportion of laboratory electricity consumption – up to 30-40% or higher in some labs. Some of this equipment is left on 24/7 even when not used or needed, which wastes significant amounts of energy.  | Visual inspection – equipment (including IT) is not running unnecessarily, plugs/off switches are easily accessible, signs of awareness raising e.g. stickers/posters. Energy saving devices are being used where appropriate, e.g. automatic timers, ‘slave’ sockets, which switch off all connected peripherals when main equipment is used. Interview with lab user(s).  | Autotimers are being introduced following the environmental and waste audits. Estates are co-funding this initiativeStop – switch off posters in every room |
| L034  | Energy, water and waste issues and costs (including any secondary costs such as increased room cooling) are explicitly considered when purchasing lab equipment.  | Energy, water and waste costs can make a significant contribution to the whole life costs of equipment – in some cases more than the initial purchase costs. If these costs are taken into account at procurement stage, it may be more cost effective to purchase more resource efficient but higher first cost equipment at the outset.  | Interview with lab user(s) and, possibly, procurement staff. Evidence that energy, water and waste costs were considered in any relevant purchases over the last 12 months, either directly or indirectly by purchasing from a scheme which has done this. NB If no recent purchases, treat as non applicable.  | Tenders include the use of the supplier support guidelines and the use of whole life cycle approach |
| L035  | The laboratory supports and participates in mechanisms which allow lab equipment to be shared between users in different teams/labs where appropriate.  | There are many examples of equipment duplication between different research groups within the same building, or in other parts of the university. Sharing equipment can save costs, space and reduce waste from ultimate disposal of the equipment.  | Evidence of equipment sharing. Evidence of a digital or written system, e.g. an effective central list of shareable equipment, booking system for use of certain equipment. NB In some cases this will be achieved through central provision of equipment.  | Booking systems for XPS, Xray – on –lineBooking for all ASEP instrumentation eg nmr |
| L036  | There is regular (at least annual) checking and servicing of large equipment.  | Regular maintenance and servicing of large equipment helps the equipment run more efficiently in terms of energy consumption.  | Interview with lab users and technical staff. Visual inspection.  | Service records for instrumentation is available. Large equipment is checked as part of the annual PAT round. Weekly checks are undertaken by the instrument technicians quarterly performance audits undertaken |
| L037  | Energy-intensive equipment is ‘rightsized’ for tasks and used with as high loadings as possible.  | Many items of equipment, e.g. drying ovens, some autoclaves, often have a base power consumption which means that their total consumption does not increase in line with loading. Hence, it can be more energy efficient to batch small job/loads, rather than running many times at low loadings, or to use smaller units more frequently.  | Interview with lab user(s). NB In some cases this will be achieved through central provision of equipment.  | ASEP – batch analysis, waiting for bulk samples to arrive |