London School of Hygiene and Tropical Medicine (Phase 3D Social Space)

SKA Design Stage Assessment

24-May-23

BDP.

Assessor: Kat Ringland, BDP

Targeted
Not targeted

REQUIRED: Silver (44 of the available 87 points, including 11 Silver gateway measures)
TARGETED: Silver (59 of the available 87 measures including 13 Silver gateway issues / 16 Gold gateway issues)
ASPIRATION: Gold (65 of the available 87 measures including 16 gateway issues)

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
Energy & CO_2									
1	D01	**GATEWAY CREDIT** Energy efficient lighting		1	This measure applies if a general lighting system serving at least one area of more than 20m2 is being installed or upgraded. The criteria apply to constantly occupied areas, being lecturer theatres, classrooms and/or office spaces (either open plan or cellular), large entrance reception areas and exhibition halls with a general illuminance of 300 to 500 lux. Laboratory criteria apply to such specialist areas only, any office or administrative areas associated with these should use the criteria relevant to such areas. Other areas within higher education environments, such as toilet blocks, lift lobbies, stairs, tea points and kitchen preparation areas are excluded.	Constantly occupied areas, such as lecturer theatres, classrooms and/or office spaces with a general illuminance of 300 to 500 lux, shall achieve a general lighting load of less than 7 W/m2. Office spaces or other areas where also applicable, can achieve the load as a combination of ambient and task lighting sources, if suitable to the nature of the work. Front and back-of-house circulation areas with a general illuminance of 100lux shall achieve a general lighting load of less than 4 W/m2. And Provide the LENI calculation for the entire installation in accordance with BS EN 15193:2007 – Energy Performance of Buildings. The calculation is as follows: Light electricity in use (kWh/m2) = annual electricity usage related to lighting (kWh) / floor area (m2) The lighting installation in laboratories shall follow the controllability requirements of S-Lab Environmental Good Practice for Laboratories Guide, which states the following: • Maximise the use of natural light. • Switch off lights that are not needed through presence detection systems. • Replace existing light fixtures with more energy efficient lighting. • The ambient lighting load to not exceed 7W/m2 or as a combination of ambient and task lighting sources, should that be suitable to the nature of the work. If not, task lighting to increase the lux levels on work surfaces to suit specific tasks undertaken in the laboratories.	MEP	Design Stage	The enhanced capital allowance element of the ETL scheme is no longer in operation. As such, many manufacturers no longer pay to test their products to qualify for the list. Therefore, although fittings may be efficient the team may not be able to demonstrate that they comply with ETL criteria. It is therefore assumed that this point will not be targeted.
2	E04	**GATEWAY CREDIT** Energy efficient light fittings		1	This measure applies if new internal or external lighting units are being installed. This includes all general lighting, feature, task and emergency signage lighting but excludes any fittings being installed for specific learning or testing methodologies, such as plant growth lamps, UV curing lamps, etc.	All internal and external light fittings (luminaires) meet or exceed the Energy Technology List (ETL) criteria for high efficiency lighting units.	MEP	Design Stage	Comments are as per issue D01.
3	D02	**GATEWAY CREDIT** Lighting controllability	1		This measure addresses the following areas within a higher education building, including but not limited to: • Reception spaces, break-out, eating and front-of-house circulation. • Teaching spaces, workshops, laboratories and lecture theatres. • Back-of-house circulation. • Staff area, including offices and administration spaces	The following scoping shall be provided as a minimum: • Keep the 60lm/circuit-watt criteria stipulated by Part L, even with lighting controls in place. • For teaching spaces, laboratories and workshops (where safe and appropriate to do so) provide a minimum of 2 lighting scenes, controllable by the main entrance door, and teacher's position (or remote control switching) where appropriate, together with manual override of automatic controls. • Provide local task lighting to laboratories, workshops and work-desks in libraries and ICT spaces where appropriate. • Reduce lighting levels to a maximum of 50% of its normal output in corridors and reception areas when these are not occupied. • Automatically alter lighting levels in accordance with natural daylight levels for all window areas including window/exhibition displays, auditoria and laboratories. • Time controls to turn off lighting out-of-hours, where appropriate.	MEP	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
4	E02	**GATEWAY CREDIT (GOLD ONLY)** Energy efficient white LEDs		1	This measure applies if new internal or external lamps are being installed. This includes all signage lighting and excludes any lamp being installed for specific learning or testing methodologies, such as plant growth lamps, UV curing lamps, etc. There may be occasional instances where existing light fittings cannot take energy efficient lamps. This measure remains in scope even though it cannot be achieved. This is because the aim of the assessment is to encourage more sustainable behaviour and in this instance the most sustainable behaviour would be to upgrade the light fittings.	All internal and external lamps meet or exceed the Energy Technology List (ETL) criteria for energy efficient white LEDs.	MEP	Design Stage	Comments are as per issue D01.
5	E01	**GATEWAY CREDIT (GOLD ONLY)** Lighting controls		1	This measure applies if new lighting controls are being installed.	Lighting controls meet or exceed the Energy Technology List criteria (ETL criteria).	MEP	Design Stage	Comments are as per issue D01.
6	E28	**GATEWAY CREDIT (GOLD ONLY)** Secondary window treatments		1	This measure is in scope for buildings where glazing is deemed to be poorly performing, and where consent has been given by the building manager/ owner/landlord to recaulk or to alter frames. This measure is automatically in scope for all historic, listed and conservation area buildings where consent by the conservation officer is given. This GPM can apply to both windows and display glazing. Scoping is assessor and project decision based on knowledge of the existing installations.	A review of the thermal performance of existing windows and frames is undertaken that takes into account heat losses (U-values) and heat gains (G-values), and a strategy to retrofit windows to improve their performance is developed. The strategy should also take into account any cosmetic requirements of the building (i.e. historic, listed buildings and buildings within conservation areas) as well as occupant comfort, air infiltration, ventilation and condensation issues. The strategy should select from the following most appropriate and efficient solutions: • installing reflective or metallized films that absorb as well as reflect solar energy, or nano/ceramic films which use high-tech compounds to provide high performance, on elevations that experience high solar gains; OR • install heat reflective or insulating shades or blinds. Insulating blinds will benefit all elevations, therefore should be installed on all windows. And • In addition to the above, recaulk frames and install appropriate weather stripping to minimise heat gains and losses from air infiltration. Or • Install secondary glazing system. Secondary glazing systems must also provide adequate ventilation and condensation controls.	Architect / MEP	Pre-Fit Out	
7	E06	HVAC zone controls		1	This measure applies if these systems are being upgraded or replaced.	Heating, ventilation and air conditioning (HVAC) zone controls are on the Energy Technology List (ETL) or meet the ETL criteria.	MEP	Design Stage	Comments are as per issue D01.

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
8	D05	Energy efficient DHW		1	This measure applies if DHW systems are being upgraded or replaced. Note: this measure only includes dedicated DHW heaters. If DHW is supplied from the system that provides space heating, it will be covered by the selection of space heating equipment (see E11 Sources of primary energy). This measure excludes electric heaters that have a storage capacity of less than 30 litres, such as sink-based boiling or chilled water taps or those that only produce hot water for making hot beverages.	Gas-fuelled domestic hot water (DHW) systems are on the Energy Technology List (ETL). Electricity-fuelled DHW systems have a standing heat loss better than that specified in table 5 of BS EN 15450:2007 (assessor to provide if required).	MEP	Design Stage	
9	D51	Energy efficient specialist ventilation	**1**		This measure applies to: • a commercial kitchen if the ventilation and extraction systems are being installed, upgraded or replaced; • a laboratory if the ventilation and extraction systems are being installed, upgraded or replaced or if new fume or safety cabinets are being installed; • a café, auditoria (including lecture theatre) or other event space if the ventilation and extraction systems are being installed, upgraded or replaced.	Catering kitchens • Design and refurbish kitchen ventilation and extraction systems in accordance with the guidance set out in CIBSE TM50, Energy efficiency in commercial kitchens. ~~Laboratories~~ ~~• Fume cupboards are specified and installed in accordance with BS 7989 parts 1 and 2.~~ ~~• Heat recovery and/or air recirculation on main supply and extract air is provided.~~ ~~• Ventilation plant to laboratory areas is provided with variable speed drives and demand response.~~ Auditoria and event space • Heat recovery and/or air recirculation on main supply and extract air is provided. • Ventilation plant to laboratory areas is provided with variable speed drives and demand response with CO2 sensing.	MEP	Design Stage	
10	E26	Energy efficient commercial service cabinets	**0**	1	This measure applies to all commercial refrigeration equipment that is being installed. This includes cabinets that are funded and supplied by a drinks supplier.	1. Food storage and display cabinets: If new, the commercial service cabinets and refrigerated display cabinets must be on the Energy Technology List (ETL). 2. Laboratory cold storage equipment: If new, laboratory fridges and freezers comply with the criteria on the Energy Technology List for professional refrigerated storage cabinets. 3. Bar cellar cooling equipment: If new, bar and cellar cooling equipment must be on the Energy Technology List. 4. All equipment types: If reconditioned, the refrigeration equipment must have had at least one of the following energy efficient measures fitted as part of the reconditioning process: • new lighting; • new compressors; • new solid doors; or • additional insulation.	MEP	Design Stage	Comments are as per issue D01.
11	E24	Energy efficient hand dryers	**1**		This measure applies if electrical hand-dryers are being installed or replaced.	All electrically-operated hand-dryers meet at least one of the following criteria: • meet all the following criteria: – have a nominal power output of 1600 W or less; – use no more than (<=) 5.5 kWh of electricity per 1,000 standard drying cycles in its normal mode of operation (if this information is available by the manufacturer); – have a drying time of 15 seconds or less; – have an equipment motor speed of 20,000 rpm or more; and – are sensor activated; or • have been awarded a carbon reduction label by The Carbon Trust; or • are on the Energy Technology List for 'High Speed Hand Air Dryers'	MEP	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
12	E09	End use sub-metering		1	This measure applies if the electrical supply system is being installed or modified, or if meters are being connected to the existing system.	Automatic monitoring and targeting (AMT) equipment is installed. AMT equipment comprises meters, an automatic meter reading device and analytical software. The meter component is installed for each electricity energy use. This requires separate meters for all the following items: • lighting – a minimum of one sub-meter per floor and per tenancy area within a floor; • small power – a minimum of one sub-meter per floor and per tenancy area within a floor; • renewables – PV units and other renewable energy sources to monitor performance; • humidification; • major fans with air handling units with greater than 10kW input power; • lifts; • escalators; • cooling systems with greater than 20kW input power; • data centres; • space heating (including combined heating and cooling systems such as variable refrigerant flow (VRF) systems with greater than 50kW input power); • domestic hot water (if they are powered by electricity) – a minimum of one sub-meter per floor and per tenancy area within a floor (excluding tea points); and • any other major energy consuming items are covered under the measure E25 Sub-metering for specialist areas. AMT equipment complies with all the qualifying standards within the Energy Technology List (ETL) criteria.	MEP	Design Stage	
13	E25	Sub-metering for specialist areas		1	This measure applies to the fit-out of specialist areas or equipment incorporating any of the equipment or areas listed in the requirements for this issue.	Automatic monitoring and targeting (AMT) equipment is installed for specialist areas/equipment, as below. AMT equipment comprises meters, an automatic meter reading device and analytical software. The meter component is installed for each electricity energy use. This requires separate meters for all the following items: • X-ray machines; • MRI scanners; • scanning electron microscopes; • environmentally controlled chambers; • cold rooms; • server rooms; • clean rooms (energy intensive); and • consideration of equipment that does not plug into the mains. In addition any large quantities of units that do plug into mains, which may collectively have high energy consumption, e.g. small power loads can consume significant amounts of power. For example ultra-low temperature storage units have a 3 pin plug but can consume between £500 to £1,500 of electricity per year and a research-heavy building can house 10-20 units.	MEP	Design Stage	
14	D04	Improvement in daylighting		1	This measure applies if alterations are made to the building façade, with the opportunity to redesign glazing. It also applies if roof lights are to be added. The criteria apply only to occupied floor spaces such as office/workshop/ teaching spaces. The criteria do not apply to circulation spaces or non-occupied spaces such as toilets and store rooms.	• average daylight factor is 2% or greater; or • Average Daylight Illuminance (ADI) values of 300 lux for 2,000 hours (climate based modelling).	MEP / Architect	Design Stage	It is assumed that these requirements will not be met.
15	E08	Thermal sub-metering		1	This measure applies if the heating/cooling supply system is being installed or modified or if meters are being connected to the existing system. It applies only where heating and cooling, and domestic hot water is either: • generated from a centralised system and supplied to each floor/tenancy area as heat (hot air or hot water); or • generated directly for the floor from a non-electric source (for example, gas).	Automatic monitoring and targeting (AMT) equipment is installed. AMT equipment comprises meters, an automatic meter reading device and analytical software. Heat meters should be MID or BS EN 1434 approved. The meter component is installed for each floor and each tenancy area within a floor for space heating and cooling, steam and domestic hot water. And: At project completion ensure the tenant/occupant has taken a meter reading to support measure P08 Reduce water in use required in the occupancy assessment	MEP	Design Stage	
16	D03	Energy efficient HVAC		1	This measure applies if any one of the components listed above is being installed, upgraded or replaced. Note: heat pumps, HVAC zone controls and boilers are good practice measures in their own right. For this measure it is necessary for all the listed components of the HVAC system that are being upgraded to meet the ETL criteria.	Heating, ventilation and air conditioning (HVAC) system components listed below are on the Energy Technology List (ETL) or meet the ETL criteria stipulated for the relevant equipment: • boiler equipment; • heat pumps; • HVAC zone controls; • motors and drives; • refrigeration equipment; • air-to-air heat exchangers; • localised rapid steam generators; • compressed air equipment; and • warm air and radiant heaters. Note: the criteria apply only to those components that are in scope.	MEP	Design Stage	The enhanced capital allowance element of the ETL scheme is no longer in operation. As such, many manufacturers no longer pay to test their products to qualify for the list. Therefore, although fittings may be efficient the team may not be able to demonstrate that they comply with ETL criteria. It is therefore assumed that this point will not be targeted.

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
17	P01	Reduce fit-out energy use	**1**		In scope for all projects.	All energy use on site is metered, records are kept and the site manager regularly reviews usage figures. Meter readings are taken at a frequency appropriate (at least once a fortnight) to the project programme with at least 5 measurements taken over the whole duration. At the end of the project, total project delivery energy usage in kWh is to be added to the project details tab on the SKA online tool.	Principal Contractor	Construction Stage	
Materials									
18	M05	**GATEWAY CREDIT** Hardwoods	**1**		This measure applies if hardwood is specified or installed.	100% of hardwood meets at least one of the following criteria: • is reclaimed; or • where new hardwood is used, is supplied with a Chain of Custody (CoC) from one of the following schemes only: – Forest Stewardship Council (FSC); – Programme for the Endorsement of Forest Certification (PEFC); or – Grown in Britain (GiB). • project achieves full FSC or PEFC project certification.	Architect / Principal Contractor	Design Stage	
19	M12	**GATEWAY CREDIT** Soft flooring	**1**		This measure applies if soft floor coverings (carpet, vinyl, linoleum, rubber, synthetic thermoplastic) are specified or installed.	All soft floor coverings, including underlay where applicable, meet at least one of the following criteria: • are reused; or • if new: – are manufactured with at least 50% recycled content (measured by mass) and 100% recyclable content (designed for deconstruction with components that can be recycled); – have an A or A+ rating in BRE's The Green Guide to Specification; – have an A or A+ rating in BRE's Green Book Live database; – are manufactured from 50% renewable and natural products, e.g. wool, natural rubber, hessian; – have a Cradle to Cradle Silver or higher certificate; – are supplied with an environmental product declaration (other than that written for the Green Book Live), written in accordance with ISO 14025 standards; – carpets are installed as part of a manufacturer's recycling or 'take back' scheme and are labelled accordingly; or – carpets are installed using a dry adhesive corner tile system as opposed to traditional contact adhesive. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions.	Architect / Principal Contractor	Design Stage	
20	M08	Partitions	**1**		This measure applies if partitions are specified, partially modified or installed	All partitions meet at least one of the following criteria: • are reused; or • if new: – are re-locatable (see guidance for definition); – the panels are manufactured with at least 90% recycled and 100% recyclable content; – all the plasterboards are supplied with an environmental product declaration written in accordance with ISO 14025 standards; or – if timber or containing timber elements, the timber meets the criteria of good practice measure D20 Timber. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions.	Architect / Principal Contractor	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
21	M29	Chairs: soft seating	**1**		This measure applies if soft seating or visitor chairs are specified or installed. It applies for both procurement routes: ordered and supplied through the main contractor or a subcontractor of the fit-out or supplied by the occupant/tenant.	All soft seating and visitor chairs meet at least one of the following criteria: • are reused; • if new, – are manufactured with at least 40% recycled, renewable or otherwise compliant content (measured by mass) and 90% recyclable content (measured by mass) and designed for deconstruction with components that can be recycled; – have a Cradle to Cradle Silver or higher certificate; – the company manufacturing the products is certified under the Furniture Industry Sustainability Programme (FISP) scheme; – are supplied with an environmental product declaration, written in accordance with ISO 14025 standards; – have been awarded a Business and Institutional Furniture Manufacturers Association (BIFMA) 'level' certification; or – have been awarded the EU Ecolabel or equivalent label. And if not covered already by the above: • where plastic parts with a weight ≥50 g shall be visibly marked in accordance with the requirements of EN ISO 11469 or EN ISO 1043 so that polymeric materials can be identified to ensure they are able to be recycled, recovered or disposed of in the correct manner at end of life; • where fabric is specified it must all comply with one of the following: – Oeko Tex certified – GreenGuard certified. – Cradle 2 Cradle silver or above certified. – Global Organic Textile Standard (GOTS universal standard for organic fibres). – Global Recycle Standard. – SMART Sustainable Textile Standard of Silver or above. – Nordic Swan. • where upholstery padding all to be CertiPUR , Blue Angel or equally certified. And • if timber or containing timber elements, the timber meets the criteria of good practice measure D20 Timber. Note: a fabric that complies with criteria listed above is an example of an otherwise compliant material instead of it being just compliant with the set recycled content. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions.	Client / Architect / Principal Contractor	Design Stage	
22	M09	Glazed partitions	**1**		This measure applies if glazed partitions are specified or installed.	All partitions meet at least one of the following criteria: • are reused; or • if new: – are re-locatable (see guidance for definition), and are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001; or – are supplied with an environmental product declaration written in accordance with ISO 14025 standards. And • if containing timber components, the timber meets the criteria of good practice measure D20 Timber.	Architect / Principal Contractor	Design Stage	
23	M10	Ceilings	**1**		This measure applies if suspended ceiling systems or membranes are specified, installed or partly modified.	All suspended ceilings, ceiling tiles or membranes meet at least one of the following criteria: • are reused; • if new: – mineral/stone wool are manufactured with at least 50% recycled content; – Gypsum have a recycled content of at least 80%; or – steel have a minimum recycled content of 60%; And – irrespective of the material, the manufacturer has a take back scheme for the material at end of life, which confirms that no materials will be sent to landfill; or • if new, have a Cradle to Cradle Silver or Platinum certificate; or • are supplied with an environmental product declaration, written in accordance with ISO 14025 standards. And • if containing timber components, the timber meets the criteria of good practice measure D20 Timber. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions.	Architect / Principal Contractor	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
24	M11	Hard flooring	**1**		This measure applies if hard flooring is specified or installed, e.g. ceramic, porcelain or composite tiles, timber and any other such rigid materials and not covered under M12 Soft flooring.	All hard floor coverings meet at least one of the following criteria: • are reused; or • if new: – are manufactured with at least 25% recycled and 100% recyclable content, designed for deconstruction with components that can be recycled, measured by mass; – have been awarded the EU Ecolabel; – have an A or A+ rating in BRE's The Green Guide to Specification for the education scheme; – have an A or A+ rating in BRE's Green Book Live database for the education scheme; – have a Cradle to Cradle Silver or higher certificate; – are supplied with an environmental product declaration (other than that written for the Green Book Live), written in accordance with ISO 14025 standards; or – if timber, or containing timber components, meet the criteria of good practice measure D20 Timber. And All adhesives used to fix the material to the floor should meet the relevant requirements of good practice measure D63 Low VOC finishes. Or Adhesives used to fix the material to the floor must allow covering to be entirely demountable so that it can be reused or recycled. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 *Environmental labels and declarations - Self-declared environmental claims* ; and • state IAQ emissions.	Architect / Principal Contractor	Design Stage	
25	M27	Countertops			This measure applies if countertops are specified or installed. It excludes items already assessed under M18 Kitchen fittings	All standard application countertops (e.g. retail shops or breakout spaces) must meet at least one of the following criteria: • are reused; • if new, are manufactured with at least 80% recycled content and are 100% recyclable; • if new, are manufactured from rapidly renewable materials; or • are supplied with an environmental product declaration, written in accordance with ISO 14025 standards. And • if timber or containing timber components, the timber meets the criteria of good practice measure D20 Timber. All performance application worktops (e.g. specialist application, laboratories, workshops) that contain timber must meet at least one of the following criteria: • are reused; or • if new are manufactured utilising minimum 70% timber content, which meets the criteria of good practice measure D20 Timber. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions	Architect / Principal Contractor	Design Stage	Notes from the previous SKA assessor are that the design team have confirmed that this is not achieved.
26	M06	Joinery	**1**		This measure applies if joinery is specified or installed.	100% of materials used in the joinery for the fit-out: • is reclaimed; or • it is new timber and meets the criteria of good practice measure D20 Timber. And Where joinery items are completed off-site, paint finishes should meet the criteria of M14 Paints, and polishes and varnishes should meet the criteria of M15 Polishes and varnishes. And All adhesives used in the assembly of each joinery item must have been tested to EN 13999 or ISO16000 standards and show that carcinogenic and volatile organic compounds are absent; or the adhesive is to have been awarded one of the following labels: • Eurofins Indoor Air Comfort Gold standard. • Blue Angel RAL-UZ 113. • M1 Emissions Classification for construction products. All materials other than those stated above, such as glass or composite panel products, must contain a minimum of 10% recycled and 100% recyclable content. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions. All assemblies must be designed for deconstruction with components that can be recycled. And All joinery companies supplying the project can demonstrate: • Membership to a recognised federation/association which requires sustainable practice as standard OR Silver Level Membership to Supply Chain Sustainability School. • An environmental policy demonstrating awareness of environmental impacts specific to the organisation such as the PAS 82.	Architect / Principal Contractor	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
27	M04	Insulation	**1**		This measure applies if new or reused insulation (either fire, thermal or acoustic) is specified or installed in the building fabric, in joints, in and under floor, in and behind linings, in and above ceilings, in partitions and around building services.	All insulation materials (fire, thermal and acoustic) meet at least one of the following criteria: If new: • are natureplus labelled product; • composite materials must be able to be separated readily at the end of first use: – are assembled without the use of adhesives; – can be demonstrated that materials can be easily separated now; and – the materials are robust enough to separate and not to disintegrate. • are manufactured with at least 50% recycled (measured by mass) and 100% recyclable content that is designed for deconstruction, reclaim and reuse with recyclable components; • are manufactured from at least 50% renewable material, e.g. hemp, flax, newspaper, wool; • are manufactured with a combination of at least 50% recycled content and 50% renewable material, e.g. hemp, flax, newspaper, wool; • 80% of the insulation has an A+ or A rating in BRE's The Green Guide to Specification; • 80% of the insulation has an A+ or A rating in BRE's Green Book Live database; or • are supplied with an environmental product declaration (EPD), written in accordance with ISO 14025 standards. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations –Self-declared environmental claims; and • state IAQ emissions	Architect / MEP / Principal Contractor	Design Stage	
28	M23	Window treatments	**1**		This measure applies if window treatments are specified or installed. The criteria apply to the main shading material of blinds, drapes and curtains. Note: wall graphic, window or glass partition film materials are to be assessed under wall coverings.	All window treatments meet at least one of the following criteria: • are reused; • if new, are manufactured with at least 80% recycled content (measured by mass) and 100% recyclable content (designed for deconstruction with components that can be recycled); • if new, have a Cradle to Cradle Silver or higher certificate; • are supplied with an environmental product declaration, written in accordance with ISO 14025 standards; or • are supplied with environmental product declarations for the materials used. And • if timber or containing timber components, the timber meets the criteria of good practice measure D20 Timber. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions.	Architect / Principal Contractor	Design Stage	
29	M14	Paints and coatings	**1**		This measure applies if paints or coatings are specified or used. Paint and coatings definition includes: • Lacquers, stains, oils, waxes, surface impregnations, plenum surface sealers, floor paints. • Polyester powder coatings and PVDF, PVF2 used on metal profiles. Polishes and varnishes are covered by M15 Polishes and varnishes	All paints and coatings meet at least one of the following criteria: • have been awarded the EU Ecolabel; • are manufactured with at least 50% recycled content; or • have been assessed by Life Cycle Assessment (LCA) and there is a published environmental product declaration (EPD), written in accordance with ISO 14025. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations - Self-declared environmental claims; and • state IAQ emissions	Architect / Principal Contractor	Design Stage	
30	M15	Polishes and Varnishes	**1**		This measure applies if polishes or varnishes are specified or used.	All polishes and varnishes meet at least one of the following criteria: • are water based; • have been awarded the EU Ecolabel; or • are supplied with an environmental product declaration, written in accordance with ISO 14025 standards.	Architect / Principal Contractor	Design Stage	
31	M17	Doors	**1**		This measure applies if doors are specified or installed. Ironmongery is currently not included in the assessment.	All doors, including frames, meet at least one of the following criteria: • are re-used; • if new: – are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001 with either (or a combination of both): – composite materials that have at least 80% recycled content; or – metal components that follow WRAP's Choosing construction products guide (see guidance) and contain average recycled content figures as follows: – steel section 15%; – stainless steel 75%; – copper sheet 60%; – aluminium extrusion 44%; and – aluminium sheet 73%. – are supplied with an environmental product declaration, written in accordance with ISO 14025 standards; and – if containing timber components, the timber meets the criteria of good practice measure D20 Timber. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions.	Architect / Principal Contractor	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
32	M18	Kitchen Fittings		1	This measure applies if kitchen fittings are installed in tea points and/or commercial kitchens.	Non-timber material in all kitchen fittings for tea points, including cupboards, worktops, shelves and carcass (framework) meet at least one of the following criteria: • are reused; or • if new: – are manufactured with at least 80% recycled content (measured by mass) and 100% recyclable content (designed for deconstruction with components that can be recycled); – are manufactured with 80% renewable content (straw or hemp) sourced from a UK manufacturing base; or – are supplied with an environmental product declaration, written in accordance with ISO 14025 standards. Note: if the only non-timber material is the laminate finish, this is currently excluded from the assessment. And Non-timber material in all kitchen fittings for commercial kitchens, including cupboards, worktops, workbenches, canopies and shelving, meet at least one of the following criteria: • are reused; • if new, are manufactured with at least 60% recycled content; or • are supplied with an environmental product declaration, written in accordance with ISO 14025 standards. And • if containing timber components, the timber meets the criteria of good practice measure D20 Timber. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations - Self-declared environmental claims; and • state IAQ emissions.	Architect / Principal Contractor	Design Stage	
33	M13	Hard wall covering	1		This measure applies if wall coverings are specified or installed. Note: wallpapers (both paper and vinyl) and paints are covered by good practice measures M16 Wall covering and M14 Paints and coatings respectively. This good practice measure covers all other products, such as tiles, wood, metal, etc.	All wall coverings meet at least one of the following criteria: • are reused; or • if new: – are manufactured with at least 70% recycled content and 100% recyclable content, measured by mass (excluding wall tiles); – wall tile (ceramic, glass, clay, stone, porcelain), are manufactured with at least 50% recycled content and 100% recyclable content, measured by mass; – have a Cradle to Cradle Silver certification or above; – have an EU Ecolabel; – are supplied with an environmental product declaration, written in accordance with ISO 14025 standards; or – if timber, or containing timber components to meet the criteria of good practice measure D20 Timber. And All adhesives used to fix the material to the floor should meet the relevant requirements of good practice measure D63 Low VOC finishes. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions.	Architect / Principal Contractor	Design Stage	
34	M03	Screed	1		This measure applies if screed is specified or installed; this includes all screeds used for floor repairs, replacement, build-up, levelling or wearing, etc.	All screeds or their ingredients must meet at least one of the following criteria: • if cement:sand based, are manufactured with cement replacement and recycled aggregates in one of the following options: – are CEM III/A 52.5L low carbon cement (blended 65% GGBS and 35% OPC); – have a screed mix low carbon blend recipe of cement and builders sand (clean sharp) 1:3-5 (weight), 1:4 in most cases; or – are manufactured with at least 50% recycled content and are 100% recyclable. • if not cement:sand based, they contain one of the following: gypsum, desulferisation gypsum, calcium sulfate or anhydrite screed; • are sourced from a certified manufacturer with a BES 6001 'Good' or better performance rating; or • are supplied with an environmental product declaration (EPD), written in accordance with ISO 14025 standards. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 *Environmental labels and declarations – Self-declared environmental claims*; and • state IAQ emissions.	Architect / Principal Contractor	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
35	M22	Other loose ancillary furniture items	1		This measure applies if furniture not covered by good practice measures M19 Workstations and tables, M20 Chairs: task seating, M21 Storage units and M29 Chairs: soft seating is specified, retained, modified, replaced or installed. Example items can include but are not limited to furniture as such lecterns and audio-visual stands. It applies for both procurement routes: ordered and supplied through the main contractor or a subcontractor of the fit-out or supplied by the occupant/tenant.	All other furniture meets at least one of the following criteria: • are reused; or • if new: – are manufactured with at least 40% recycled, renewable or otherwise compliant content (measured by mass) and 90% recyclable content (measured by mass) and designed for deconstruction with components that can be recycled; – have a Cradle to Cradle Silver or higher certificate; – the company manufacturing the products is certified under the Furniture Industry Sustainability Programme (FISP) scheme; – are supplied with an environmental product declaration, written in accordance with ISO 14025 standards; – have been awarded a Business and Institutional Furniture Manufacturers Association (BIFMA) 'level' certification; or – have been awarded the EU Ecolabel or equivalent label. And if not covered already by the above; • where plastic parts with a weight ≥50 g shall be visibly marked in accordance with the requirements of EN ISO 11469 or EN ISO 1043 so that polymeric materials can be identified to ensure they are able to be recycled, recovered or disposed of in the correct manner at end of life; • where fabric is specified it must all comply with one of the following: – Oeko Tex certified; – GreenGuard certified; – Cradle 2 Cradle silver or above certified; – Global Organic Textile Standard (GOTS universal standard for organic fibres); – Global Recycle Standard; – SMART Sustainable Textile Standard of Silver or above; and – Nordic Swan labelled. – where upholstery padding all to be CertiPUR , Blue Angel or equally certified. And • if timber or containing timber components, the timber meets the criteria of good practice measure D20 Timber. Note: a fabric that complies with criteria listed above is an example of an otherwise compliant material instead of it being just compliant with the set recycled content. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions.	Client / Architect / Principal Contractor	Design Stage	
36	M28	WC cubicles and Integrated Plumbing Systems	1		This measure applies if components are specified new, reclaimed, upgraded (including repair) or installed. Integrated Panel Systems (IPS) for concealed cisterns with or without basins, dispensers, hand dryers, WCs and urinals attached are covered by this good practice measure. Vanity units including basins, and counter tops, are covered by this measure. Basins, WCs, and urinals are not included in the assessment.	All WC cubicles must meet at least one of the following criteria: • are reclaimed and reused from the same or other site(s). • If new: – are manufactured with at least 70% recycled content (measured by mass) and 100% recyclable content (designed for deconstruction with components that can be reused or recycled); – are manufactured with 70% renewable content (e.g. timber, straw or hemp, etc.) sourced from a UK manufacturing base; or – are supplied with an environmental product declaration (EPD), written in accordance with ISO 14025 standard. And • if timber or containing timber components, the timber meets the criteria of good practice measure D20 Timber. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions.	Architect / Principal Contractor	Design Stage	
37	M25	Shopfitting display and exhibition equipment	1		This measure applies if any of the following shopfitting, display and exhibition display equipment is specified or installed: • free standing displays (gondolas, open shelves, display cabinets and display cases); • parasite displays (those hanging off other displays); or • shelf and counter displays. It applies to both procurement routes: ordered through and supplied by the main contractor or a subcontractor of the fit-out; or supplied by the occupant/tenant. Note: electrical and electronic display equipment is not covered by this measure.	All shopfitting display and exhibition equipment should meet at least one of the following criteria: • is reused; • if new, is manufactured with 15% recycled content; • has been assessed using the BRE LIST tool to evaluate the LCA (life cycle assessment) and for every product specified and installed, the one with the lowest ecopoints (CO_2 per unit) has been selected; or • if new, are modular and can be updated without additional use of recourses or elements sent to landfill. And • where integrated lighting is present this all needs to be compliant with good practice measure E02 Energy efficient white LEDs or E04 Energy efficient light fittings. And • Plastic parts with a weight ≥50 g shall be visibly marked in accordance with the requirements of ISO 11469 or ISO 1043 so that polymeric materials can be identified to ensure they are able to be recycled, recovered or disposed of in the correct manner at end of life. And • if timber or containing timber components, the timber meets the criteria of good practice measure D20 Timber. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions.	Architect / Principal Contractor	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
38	M26	Internal signage	**1**		This measure applies if internal signage for promotions, displays, way finding and adhered graphic products (manifestations) are specified or installed. It applies to both procurement routes: ordered through and supplied by the main contractor or a subcontractor of the fit-out; or supplied by the occupant/tenant directly. Excludes electronic meeting room booking systems, statutory, means of escape and illuminated sign light fittings.	All internal signage must meet at least one of the following criteria: • are reused; • if new: – all components are manufactured with one or a combination of the below materials: – a recycled content of at least: – aluminium extrusion – 44%; – aluminium sheet – 73%; – steel section – 60%; – steel sheet – 60%; – stainless steel – 75%; – copper sheet – 60%; – glass – 10%; and – recycled composite materials – 80%. – adhered rapidly renewable products – 100%; – adhered graphics – 100% manufactured from non-PVC products; and – textiles to have the OekoTEX or Ecolabel certification or be made with rapidly renewable products. • are modular and can be updated without additional use of recourses or elements sent to landfill; • have a BES 6001 ‘Good’ rating or better; • are supplied with an environmental product declaration, written in accordance with ISO 14025 standards; or • are Greenguard Certified or have a Cradle to Cradle Silver or higher certificate. And • if timber or containing timber components, the timber meets the criteria of good practice measure D20 Timber. Any recycled and recyclable content claims must: • comply with ISO 14021:2016 Environmental labels and declarations – Self-declared environmental claims; and • state IAQ emissions.	Architect / Principal Contractor	Design Stage	
39	D21	Total recycled materials		**1**	This measure applies to all new materials covered by measures M02–M29 and all materials included on the finishes schedule. This measure is in scope as soon as at least one of the measures M02–M29 is in scope.	All the materials that fall within the scope of good practice measures M02 to M29 are: • reused; or • meet the requirements for the percentage recycled and recyclable content of those good practice measures. Note: a product can be considered to have been reused where it is salvaged and used for its original intended purpose, or where the majority of component parts of the product are remanufactured into new products without significant reprocessing. Recycled content claims must comply with ISO 14021:2016 Environmental labels and declarations - Self-declared environmental claims and state knowledge of IAQ emissions.	Architect / Principal Contractor	Design Stage	Design team to confirm if this point should be targeted.
40	D20	Timber	**1**		This measure applies if timber is specified or installed. This includes hardwoods, softwoods, joinery, timber panel products (e.g. MDF, plywood), composite timber, wood veneers in permanent installations and temporary site timber. It also includes all timber found in furniture products, supplied through the main contract or directly procured by the client.	100% of timber used is from at least one of the following sources: • is reclaimed; • where new or recycled content timber is used, is supplied with a Chain of Custody (CoC) from one of the following schemes only: – Forest Stewardship Council (FSC); – Programme for the Endorsement of Forest Certification (PEFC); or – Grown in Britain (GiB). • project achieves full FSC or PEFC project certification.	Architect / Principal Contractor	Design Stage	
41	D19	Materials Specification		**1**	This measure applies to all new materials covered by the Materials GPMs in the scheme being assessed and all materials included on the finishes schedule. This measure is in scope as soon as at least one of the Materials measures is in scope.	All the materials that fall within the scope of the Materials GPMs in the scheme being assessed meet the requirements of those measures.	Architect / Principal Contractor	Design Stage	Design team to confirm if this point should be targeted.
42	D83	Total materials with EPD	**1**		This measure applies to all new materials covered by measures M02–M29. This measure is in scope as soon as at least one of the measures M02–M29 is in scope. Timber products where timber is the main component are excluded from this measure as timber is currently assessed under the measure D20 Timber.	70% of the materials that fall within the scope of Materials measures M02 to M29 are: • supplied with an environmental product declaration (EPD), written in accordance with ISO 14025:2006 standards; or • supplied with a Cradle to Cradle certificate achieving Silver – Platinum as required within their individual good practice measure criteria.	Principal Contractor	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
Pollution									
43	D22	**GATEWAY CREDIT** Low GWP insulation	**1**		This measure applies if any new or reused insulants (for thermal, fire, acoustic, void or gap filler applications) are specified or used in the building fabric.	The manufacture and installation of all new or reused insulants only uses products that have a Global Warming Potential (GWP) of less than 5. The criteria apply both to the products that the insulation materials are manufactured from, and any resources, catalysts, materials, recyclate and ingredients, such as blowing agents that are used in their manufacture, but may or may not be present in the final product.	MEP / Architect	Design Stage	
44	D23	**GATEWAY CREDIT** Low impact refrigerants	**1**		This measure applies if any new refrigerants are used in the building services.	The systems using refrigerants have Direct Effect Life Cycle CO2 equivalent emissions (DELC CO2 e) of <1000 kgCO2 e/kW cooling capacity. The Direct Effect Life Cycle CO2 e emissions (DELC) per kW of cooling capacity are calculated using the following equation: (Refrigerant loss operational + refrigerant loss system retirement) × GWP Cooling Capacity (kW) Where: Refrigerant loss operational: (Refcharge x Sysop-life x (L1 + L2 + S1 + S2)) /100 Refrigerant loss system retirement = Refcharge x ((1 - RefRecEff)/100) Where: • Refcharge = Refrigerant charge • Sysop-life = System operational lifetime (years) - use default value of 10 years • RefRecEff = Refrigerant Recovery Efficiency factor (%) • L1 = Annual Leakage Rate (units: % refrigerant charge) • L2 = Annual Purge Release factor (% refrigerant charge) • S1 = Annual Service Release (% refrigerant charge) • S2 = Probability factor for catastrophic failure (% refrigerant charge loss/year) • GWP = Global Warming Potential of refrigerant • Cooling capacity (kW)	Kitchen Designer	Design Stage	
45	D57	Refrigerant leak prevention		**1**	This measure applies where any new refrigerant systems are installed or changes are made to an existing system. It does not apply to systems: • with a refrigerant charge of under 3kg; or • where the refrigerant has a GWP of less than 5.	Refrigerant systems must be designed to prevent leaks using these standards: • BS EN378-1: 2008+A2:2012 Refrigerating systems and heat pumps: safety and environmental requirements. • REAL Zero's guidance: – Designing out leaks: design standards and good practices; – Guide to good leak testing; and – Leakage matters: the service and maintenance contractor's responsibilities.	MEP	Design Stage	
46	D24	Refrigerant leak detection		**1**	This measure applies where refrigerant systems with a refrigerant charge of over 3kg are installed. It does not apply where systems using refrigerants with a GWP of less than 5 are being installed.	Refrigerant leak detection systems are implemented. • For internal plant rooms: a refrigerant leak detection system is specified and installed that uses fixed multi-point gas detectors and samples air in a number of locations. • For rooftop and non-air-tight locations: a refrigerant leakage/ charge loss detection system is specified that is not based on the principle of detecting or measuring the concentration of refrigerant in air (e.g. the detection of refrigerant pressure drops, indicating leakage).	MEP	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
Project Delivery									
47	D71	**GATEWAY CREDIT** Soft landings - aftercare (fine tuning, seasonal commis-sioning and POE)	**1**		In scope for all projects.	All the following are required: At design stage: • Ensure a contract/appointment is in place to guarantee the designer and contractor returns to fine-tune systems throughout the first year of occupation. • The contract/appointment should set a point of contact from the project team once the project is complete. This person is to liaise with the building operators and occupants to ease the handover process and to allow building users and building maintenance staff to ask questions about user controls, etc. At handover stage: • The point of contact should carry out 'walkabouts' and stay on site, at least one day a week, for the initial 8 weeks of occupation. For projects valued under £2m to visit site at least one day every two weeks. • Ensure that the contractor is appointed to validate the operational performance of the building against the design parameters and soft landing performance targets. This should include validating sub-meter readings. At occupancy stage: • Carry out fine tuning and review of systems. • Undertake seasonal/annual commissioning for complex systems (complex systems are defined in D70 Soft landings: commissioning, handover and training). • The soft landings point of contact should record lessons learnt from the design, construction, operation and handover on behalf of the client to feedback into new projects. • Carry out a Post Occupancy Evaluation (POE) 12 months after total completion and full occupation. The POE should provide a review of the performance of the building against the soft landings performance targets set at the start of the project. The POE should include: – a review of energy use against design benchmarks; – an occupant satisfaction survey that covers the building users views of their working environment; and – an audit of the building's engineering and architectural systems.	Client / MEP / Principal Contractor	Design Stage	
48	D69	**GATEWAY CREDIT (GOLD ONLY)** Soft landings: design workshops	**1**		In scope for all projects.	Both of the following workshops are required to happen: 1. Design stage workshop with design team Aim: to enable the design team to understand how effectively current systems are operating, test whether the new and retained systems are appropriate for the occupants/building maintenance staff and raise any issues about the functionality of the design. Attendees: the workshop should involve the design team, the contractor (if appointed), an end-user representative, and a representative from building management who will be responsible for operation of the new space. Agenda: • Review feedback and lessons learnt from any previous projects, especially relating to sub-metering, controls strategies, selection of equipment, maintenance issues. • Set roles and responsibilities. • Set specific and measurable performance targets for lighting and small power energy use. • Set specific and measurable performance targets for water use, if applicable. • Test out proposed user interfaces (controls) with occupants and operations staff. 2. Design intent workshop with contractor Aim: to ensure that the design intent is clearly communicated to the contractor and that the equipment being purchased aligns with the design intent. Ensure contractor understands their role in the soft landings process and the outcomes that are to be achieved. Attendees: the workshop should involve a client representative, a building management representative, the contractor and the design team. Agenda: the workshop should explain and discuss: • The role of the contractor in the soft landings process. • The performance targets that have been set. • The rationale for the selection of energy using equipment. • The reasons for the controls that have been selected. • The importance of the proposed sub-metering and BMS/AMT strategy. • The impact of the fit-out design on other systems and parts of the building. • The process of commissioning, handover and training.	Design Team / Principal Contractor	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
49	D45	**GATEWAY CREDIT (GOLD ONLY)** Building User Guide	**1**		In scope for all projects.	A building user guide (BUG) for non-technical staff is produced that is: • Greater than 15 pages. • Avoids using technical jargon and includes clear illustrations (diagrams/ photographs) to assist comprehension, complementing the required O&M manuals. • Contains simple and clear information on how to operate each item in the scope of the fit-out on a day-to-day basis. • The guide should include: – a brief explanation of BUG purpose; – an explanation of the design intent and the heating/cooling strategies; – an overview of the controls/BMS; – building energy performance records; – energy/water metering, monitoring and targeting strategy; – summary of areas, occupancy, WC provisions and fire strategy; – building waste, recycling and reuse monitoring record and targeting strategy; – principles of material selections and item-specific user operational guidance such as furniture reusing carpet tile recycling and linoleum cleaning; – summary of SKA rating scope and score; and – reference page to other relevant documents. A BUG for tenants/occupants is produced that: • is 1-2 pages (the BUG can be in the form of local signage or an intranet page instead of a written document, if appropriate); • avoids technical jargon and includes clear illustration to assist comprehension; and • includes: – clear information on all controls relevant to the tenants/occupants (blinds/local heating/lights/etc.); – buildings waste and recycling strategy; and – energy / water metering, monitoring and targeted strategy	Principal Contractor	Construction Stage	
50	D70	Soft landings: commission-ing, handover and training	**1**		In scope for all projects.	All the following are required: At design stage • For all projects the contractor's commissioning manager should be involved as soon as the contractor is appointed to review the design and should be responsible for planning and implementing the commissioning process. • For complex projects involving the replacement of one or more mechanical or electric system that would interact or projects with a construction value ≥£2million, commissioning should be overseen by an MEP (Mechanical, Electrical & Public Health) design engineer appointed by the client. The role would include reviewing commissioning results, involvement in spot checks and ensuring that the design intent is being implemented. At handover stage • Provide adequate training of staff and occupants prior to handover by: – training of operators through their involvement in commissioning and testing; – including operators in the final commissioning stage so they understand any defects and characteristics of the system; and – non-technical training for prospective occupants and facilities staff on the design intent, including user controls and how best to ensure that comfort conditions are maintained in the space (e.g. not blocking ventilation grilles). • The technical training should include showing operators how to set up the BMS and controls and allowing them to test out the system. Operators should be involved in the setting up and calibration of the metering and monitoring systems. • A brief commissioning report should be prepared for the operators that summarises the results of the commissioning exercise. The report should state that any defects that were found have been resolved and that the system has been set up to maximise plant efficiency.	Principal Contractor	Construction Stage	
51	D81	Responsible sourcing	**1**		This measure will always be in scope for all projects where at least one materials measure is in scope.	10% of the total material measures in scope (rounded up to the nearest integer) must achieve this measure in order to enable the project to be awarded this GPM. Which measures are included in the 10% is the project team's decision. For example, where soft flooring is specified and is to be included within this measure, all soft flooring must comply with the requirements. All materials (within those that form the selected 10%) must meet at least one of the following criteria: • Supplier has been successfully audited against SEDEX SMETA criteria. • Product has been assessed and certified under BES 6001 or manufactured under a scheme that complies with the requirements of BS 8902. • Product has applicable chain of custody certification (e.g. FSC or PEFC). • Manufacturing site is certified to an internationally recognised environmental management system (e.g. EMAS or ISO 14001), which has a scope that covers the products manufacture. • Procuring organisation has been independently audited against a recognised procurement standard (e.g. BS 8903 or ISO 20400). Note: in the above list, 'recognised' means adopted and used by more than one organisation.	Principal Contractor	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
52	P14	Social value actions	**1**		This measure is in scope for all projects over a value of £2m. For projects with value below £2m this measure is in scope if the client chooses to pursue it.	A social, economic and environmental plan is put in place prior to start on site and executed. Projects must make quantifiable steps in at least 4 of the below criteria. The plan will consider as a minimum: 1. The viability of employing apprentices during the project. 2. The viability of taking on work experience students during the project. 3. The proportion of the project spend that will be spent in the local community (see below for definitions of local). 4. The proportion of materials that were sourced from the local community. 5. An approximation of the number of work hours generated in the local community by the project. 6. The viability of offering additional training to operatives or other project stakeholders that will provide added value to the local community. 7. Any additional environmental issues not picked up in other aspects of SKA, e.g. ethical/fair trade food sourcing for project canteen, real time environmental monitoring, carbon offset programmes or any item that CCS formally award as an environmental innovation. Note: above point 7 – 'additional environmental issues not picked up in other aspects of SKA' can only be achievable once, even if multiple additional items have been undertaken. Defining local: It is likely that the definition of 'local' will differ by project and region. For the purposes of this assessment choose the option below that is most relevant to your project and clearly state how this is defined in your social, economic and environmental plan: 1. Local or regional government area. This may be appropriate where you are working on a public sector project. 2. Area from which a large proportion (e.g. 80%) of either project or contractor employees live. This will reflect well on a local company showing its impact on a local economy. 3. More complex areas, for example a two ring band from a central point. This may be relevant where your project spans a number of different regional boundaries.	Principal Contractor	Design Stage	
53	P15	Furniture inventory	**1**		In scope if the fit-out is stripping out furniture.	An inventory of all furniture items pre strip-out that categorises and uses the waste hierarchy to dictate what items are to be reused (decanted), shared throughout the campus, re-processed where repairs are needed for re-use, or given to the third sector.	Client	Pre-Fit Out	
54	D44	CCS registration	**1**		In scope for all projects.	When the construction period is 6 weeks or more: • the site is registered with the Considerate Constructors Scheme (CCS) for site registration and the site achieves a score of at least 35 points out of 50. When the construction period is less than 6 weeks: • the contractor is registered with the Considerate Constructors Scheme (CCS) for company registration, and the contractor can demonstrate that over the preceding 12 months it has obtained a company certificate of compliance.	Principal Contractor	Design Stage / Construction Stage	
Transport									
55	D41	Cycle parking		**1**	This measure applies to all fit-outs unless it is demonstrated by university cycle parking surveys that there is already sufficient cycle parking within suitable proximity to the scheme. Parking space counts need to have been completed within the last 12 months as demand can change rapidly.	Secure, lockable cycle racks are provided in the following quantities: • One space per 8 student users. • One space per 10 university staff. Cycle parking calculations should be based on the maximum number of predicted users of the refurbishment space. Where users are mixed, one space per 8 should be applied.	Architect	Design Stage	
56	D79	Campus and/or building wide travel plan		**1**	This measure applies to all fit-outs located on a campus development. This measure is not in scope where there is an existing campus or building wide travel plan in place that is applicable to the building users (including the minimum content above). Where a building is located off campus, or a site specific building travel plan is being developed, this measure will not be in scope (see D78 Travel plan).	A campus wide travel plan must be developed as part of the planning and design stage of the project. Or, where there is an existing campus travel plan currently in use, this must be updated to reflect the new fit-out and minimum criteria below. This may be an update to the whole travel plan, or provided as an addendum. The addendum must include any site-specific changes to the below items where different to the main campus travel plan. The travel plan must include as a minimum: • Existing travel infrastructure provided for all building users. • Existing travel patterns of all current building users where occupied. • Access requirements for building users across all mobility levels. • Consideration of any local government or community travel policies. • Specific targets and measures to encourage sustainable, low carbon forms of transport. • Specific targets and measures to reduce the need for travel. • Physical and behavioural measures. • Responsibilities assigned for implementing travel plan measures. • A commitment to review the travel plan at least once every 5 years.	Client / Architect	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
57	D59	Construction phase CO2 emissions	1		In scope for all projects.	A site-specific construction travel plan is produced that identifies ways to reduce vehicle movements and must consider the criteria suggested below: • Design of appropriate service facilities and off-street loading where practical. • Procurement of goods and services including feasibility of sourcing items locally or from the same supplier and procuring off-site manufactured items for larger components. • Commitment by operators to follow best practice measures e.g. signed up to the FORS scheme, use fuel efficient vehicles, or low carbon modes of delivery (e.g. rail and train). • Operational efficiency demonstrating pro-active management of deliveries to reduce the number of vehicle deliveries. • Waste management options for segregating, storing and removing waste including feasibility of using a Construction Consolidation Centre. • Targets and monitoring are determined at the start of the project and reviewed throughout construction. The principal contractor must also monitor site transport, including deliveries of materials and plant to site, and movement of waste from site. The following should be recorded and displayed on site: • vehicle distance to and from site; • types of vehicle used; and • the calculated CO2 emissions.	Principal Contractor	Design Stage	
Waste									
58	D72	**GATEWAY CREDIT** Pre-refurbish-ment audit	1		In scope for all projects.	An experienced member(s) of the design team (or other competent person) is to carry out a pre-refurbishment audit to identify opportunities for retaining and reusing existing materials from the proposed refurbishment. The audit must cover the key refurbishment waste streams including: • Gypsum (including plasterboard) (also see D12). • Ceiling systems (also see D13). • Floor finishes (also see D14). • Workstations and tables (also see D15). • Specialist workbenches (also see D75). • Chairs (also see D16). • Storage units (also see D17). • Other loose furniture (also see D18). • Doors (also see D48). • Mechanical and electrical services (also see D68). • Raised access floors (also see D74). • Relocatable solid and glazed partitions (also see M08 and M09). And Include a measure of the actual number of items/m2/volume/tonnage of material along with an estimate of the waste quantities if all material were discarded.	Architect / Principal Contractor	Pre-Fit Out	
59	D60	**GATEWAY CREDIT** Designing out waste	1		In scope for all projects.	The design team must: • identify opportunities individually and collectively to design out waste in the fit-out; • hold a designing out waste workshop to develop findings, review opportunities from the pre-refurbishment audit, concentrating on the key SKA waste categories; and • record the design solutions pursued in reducing material consumption and waste within the resource management plan (RMP). The team must provide a record of drawings, specifications and discussion notes/minutes from the designing out waste workshop(s) that demonstrate design solutions reducing material consumption and wastage.	Design Team / Contractor	Pre-Fit Out	
60	D12	**GATEWAY CREDIT** Reduce gypsum waste	1		This measure applies if the removal of existing partitions or plaster finishes forms part of the fit-out contract or if partitions are to be installed.	For all newly installed plasterboard: • achieve a maximum wastage rate of 15%. For all gypsum waste (plasterboard and gypsum plaster from demolition and installation): • segregated on site for disposal via specialist waste company or manufacturer's take back scheme.	Principal Contractor	Construction Stage	
61	D09	**GATEWAY CREDIT (GOLD ONLY)** Resource management plan (RMP)	1		In scope for all projects.	A resource management plan (RMP) is prepared prior to site works beginning. The format of the RMP includes and allows for the projected and actual re-use and waste stream volumes or tonnages that will be individually tracked by the SKA assessment. The RMP should have appended a schedule of all items to be re-used or removed from site that are covered by the WEEE (Waste Electrical and Electronic Equipment) regulations. • At least 95% of non-hazardous material removed from the project (both construction and demolition) is diverted from landfill or re-used within the project (where waste is removed by non-PAS 402 certified waste contractor). • At least 85% of non-hazardous material removed from the project (both construction and demolition) is diverted from landfill or re-used within the project (where waste is removed by a PAS 402 certified waste contractor). The diversion from landfill targets above include reuse (which also incorporates refurbishment and remanufacture), and waste recycling and energy recovery. The reuse volumes/tonnages will need to be calculated based on the item's anticipated waste volume/tonnages.	Principal Contractor	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
62	D14	Reduce floor finishes waste	1		This measure applies if the removal of any existing floor finishes forms part of the fit-out contract or if new flooring is being installed. The measure also applies if a floor finish is retained through significant refurbishment and is clearly identified as part of the project scope of works; for example timber floors may need to be sanded down to enable re-use.	At least 80% of all the removed carpet and soft floor finishes are: • reused either on or off site; or • recycled through a closed loop scheme (e.g. manufacturers take back scheme). At least 50% of all the removed vinyl based finishes are: • recycled through a closed loop scheme (e.g. manufacturers take back scheme). At least 80% of all the removed timber flooring is: • reused either on the same site or another evidenced use off site. Remaining percentage to be diverted from landfill. Note: a product can be considered to have been reused where it is salvaged and used for its original intended purpose or where the majority of component parts of the product are remanufactured into new products without significant reprocessing.	Principal Contractor	Construction Stage	
63	D16	Reduce chairs waste	1		This measure applies if the removal of existing workstations and tables forms part of the fit-out contract. The measure also applies if a product/material is retained through significant refurbishment and is clearly identified as part of the project scope of works.	At least 80% of all removed chairs are: • reused either on or off site; or • recycled through a closed loop scheme (e.g. manufacturer's take back scheme). Remaining 20% of removed chairs to be diverted from landfill. Note: a product can be considered to have been reused where it is salvaged and used for its original intended purpose, or where the majority of component parts of the product are remanufactured into new products without significant reprocessing.	Client	Pre-Fit Out	This has been achieved.
64	D15	Reduce workstations and tables waste	1		This measure applies if the removal of existing workstations and tables forms part of the fit-out contract. The measure also applies if a product/material is retained through significant refurbishment and is clearly identified as part of the project scope of works.	At least 80% of all removed workstations and tables are: • reused either on or off site; or • recycled through a closed loop scheme (e.g. manufacturer's take back scheme). Remaining 20% of removed workstations and tables to be diverted from landfill Note: a product can be considered to have been reused where it is salvaged and used for its original intended purpose, or where the majority of component parts of the product are remanufactured into new products without significant reprocessing.	Client	Pre-Fit Out	This has been achieved.
65	D48	Reduce door waste	1		This measure applies if the removal of doors forms part of the fit-out contract or if new doors are being installed. The measure also applies if the material/product is retained through significant refurbishment and is clearly identified as part of the project scope of works.	At least 50% of all removed doors are: • reused either on or off site. Remaining percentage to be diverted from landfill. Note: a product can be considered to have been reused where it is salvaged and used for its original intended purpose or where the majority of component parts of the product are remanufactured into new products without significant reprocessing. Repair and/or refurbishment of the product or component parts is permitted.	Principal Contractor	Construction Stage	
66	D13	Reduce ceiling systems waste	1		This measure applies if the removal of existing ceilings forms part of the fit-out contract or if new ceilings are being installed. The measure also applies if a ceiling is retained through significant refurbishment and is clearly identified as part of the project scope of works; for example metal tiles may need to be repainted to enable re-use.	At least 50% of the removed ceiling system(s) is: • reused on or off site; or • recycled through a closed loop scheme (e.g. manufacturer's take back scheme). Remaining percentage is to be diverted from landfill. Note: a product can be considered to have been reused where it is salvaged and used for its original intended purpose, or where the majority of component parts of the product are remanufactured into new products without significant reprocessing.	Principal Contractor	Construction Stage	
67	D08	Recyclable waste storage space	1		In scope for all projects.	An operational waste management strategy has been developed in accordance with the departmental/occupational need and provides a dedicated space for storage and is in line with any existing campus wide waste strategy. Space is provided for the storage of recyclable waste generated by the occupant's operations, based on the waste management strategy's recommendations. This space should: • be adequately sized in line with the operational activities of the occupant and waste collection frequencies, ensuring it can cover peak occupancy levels; • be accessible to both building occupants and waste collectors; • be clearly marked as an area for recycled waste; • have a used battery bin available for occupant use where batteries are supplied (i.e. union shop); and • the size of segregated bins should be consistent with the volumes of operational waste streams generated.	Architect / Client	Design Stage	
68	D73	Reduce packaging waste		1	This measure applies to all new products delivered to site.	Returnable reusable packaging to be used by at least 5 product manufacturers/distributors supplying the project.	Principal Contractor	Construction Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
69	D18	Reduce other loose furniture waste	**1**		This measure applies if the removal of other loose furniture items (not covered by measures D15, D16, D17) forms part of the fit-out contract. The measure also applies if a product/material is retained through significant refurbishment and is clearly identified as part of the project scope of works	At least 50% of all other removed loose furniture items (i.e. those items not covered by measures D15, D16, D17) are: • reused either on or off site; or • recycled through a closed loop scheme (e.g. manufacturer's take back scheme). Remainder of removed other loose furniture to be diverted from landfill. Note: a product can be considered to have been reused where it is salvaged and used for its original intended purpose, or where the majority of component parts of the product are remanufactured into new products without significant reprocessing.	Client / Principal Contractor	Pre-Fit Out	This has been achieved.
70	D68	Reduce mechanical and electrical services waste	**1**		This measure applies if the removal of mechanical and electrical services forms part of the fit-out contract or if new mechanical and electrical services are being installed.	Condition survey to be carried out on all M&E (mechanical and electrical) equipment prior to concept design to determine what could be reused. Note: a product can be considered to have been reused where it is salvaged and used for its original intended purpose or where the majority of component parts of the product are remanufactured into new products without significant reprocessing.	MEP	Pre-Fit Out	
Water									
71	E14	**GATEWAY CREDIT** Efficient taps	**1**		This measure applies if taps are being installed or replaced. The criteria apply to washroom areas and further ancillary rooms where taps are installed for hand washing. The criteria do not apply to taps installed in commercial kitchens, tea points, cleaner's workrooms or similarly specialised spaces.	Flow rate on taps used for hand washing is limited to 4 litres/minute up to a pressure of 5 bar +/– 0.2 bar and the tap fitting or flow controller is on the Water Technology List (WTL) or has an EU Water Efficiency Label. The tap should be one of the following: • automatic shut-off taps; • electronic taps; • low flow screw-down/lever taps; or • spray taps Where auto-shut off or electronic taps are specified these should be restricted to no more than 20 seconds flow in line with, and be on, the Water Technology List for automatic shut-off taps.	MEP / Architect	Design Stage	
72	E12	**GATEWAY CREDIT (GOLD ONLY)** New low flush WCs	**1**		This measure applies if WCs are being installed or replaced or if washrooms containing WCs are being installed or replaced.	WCs have an effective flush volume of 4.5 litres or less and are on the Water Technology List (WTL) or have an EU Water Efficiency Label.	MEP / Architect	Design Stage	
73	E19	Sanitary supply shut-off	**1**		This measure applies if the water supply system is being installed or modified or if a sanitary supply shut-off system is connected to the existing system.	A control system to isolate the water supply when the washrooms are unoccupied is specified and installed. This usually comprises a solenoid valve and occupancy sensor. The device must be on the Water Technology List (WTL) or comply with the WTL criteria. The shut-off system only needs to be applied to the cold water supply to taps, WCs and urinals.	MEP	Design Stage	
74	E27	Water sub-meters		**1**	This measure applies where: • the water demand of an individual piece of water-consuming equipment is greater than 10% of the total water demand of the fit-out space; or • The project has more than one water consuming activity area, such as an office space and/or laboratory, catering, medical facilities, sport facilities, agricultural facilities.	• water sub-meters are installed to specific activity areas within the fit-out space or to individual water consuming plant; • the sub-meter is capable of transmitting information on water use to a central data logger for water management purposes; and • the meter is on the Water Technology List (WTL).	MEP	Design Stage	
75	P07	Reduce fit-out water use	**1**		In scope for all projects.	All water use on site is metered, records are kept and the site manager regularly reviews consumption. Meter readings are taken at a frequency appropriate (at least once a fortnight) to the project programme with at least 5 measurements taken over the whole duration. At the end of the project, total project delivery water usage in m3 is to be added to the project details tab on the SKA online tool.	Principal Contractor	Construction Stage	
Wellbeing									
76	D28	**GATEWAY CREDIT** Thermal comfort assessment		**1**	This measure applies if HVAC systems are being installed, partly modified or replaced, or modifications to the façade or windows will be undertaken.	Thermal comfort modelling to CIBSE AM11 standard has been carried out at the design stage; the results of this modelling are used to select a service strategy that aligns CIBSE Guide A (see guidance below). Projects valued under £500K, if unable to undertake the above modelling, are required to: • provide an overlay of the furniture and mechanical plans; • provide written evidence in the form of meeting notes to demonstrate discussion has taken place with the client regarding occupant comfort; and • provide a list of the solutions and actions to be taken following the client review. The issues that must be discussed as a minimum are: locations of cold/hot spots (from HVAC equipment locations and downdrafts), radiant temperatures and overheating near windows and atria.	MEP	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
77	D30	**GATEWAY CREDIT** Lighting design	**1**		This measure applies to all occupied areas.	The lighting levels should be in accordance with BS EN 12464-1: 2012, the SLL Code for Lighting and CIBSE Lighting Guides for the specific area. Additionally the following shall be evidenced as being considered in the lighting design: • Surface reflectance as per SLL Code for Lighting Parameters (2012) for ceilings, walls and floor respectively as a minimum. This is to ensure surface reflectance is kept at a standard level: – ceiling: 0.7 to 0.9; – walls: 0.5 to 0.8; and – floor: 0.2 to 0.4. • Uniformity. • Colour temperature. • Colour rendering. • Vertical illuminance of teaching spaces. • Highlight at least 3 different aspects of the lighting design that specifically focused on wellbeing of occupants. This includes and is not limited to: – up-lighting at least 30% of the environment; – lighting scenes; – mood lighting; – local controllability of illuminance levels; – architectural fittings; – engagement with end-user on the lighting design; – engagement with architects and interior designers; and – task lighting.	MEP / Architect	Design Stage	
78	D29	**GATEWAY CREDIT** Acoustic design	**1**		This measure applies to all fit-outs and refurbishment projects and those areas within them that include at least one of the following: lecture theatres, classrooms, study and breakout spaces, laboratories, offices, circulation routes, public event areas and canteens.	A 2 tier approach to this GPM is required, depending on the spaces being designed and in scope: A. Teaching spaces including: lecture theatres, classrooms, study spaces and laboratories if they include a teaching space. B. Other spaces such as offices, exhibition areas, circulation routes, canteens, etc. If one or both type of spaces is in scope, the relevant criteria below must be applied: A. An acoustician who is a corporate member (or higher) of the Institute of Acoustics or whose company holds membership of the Association of Noise Consultants is part of the design team, and the criteria from the current standard BB93 are used as design targets. B. An acoustician who is a corporate member (or higher) of the Institute of Acoustics or whose company holds membership of the Association of Noise Consultants is part of the design team and the criteria from the current BB93, or FIS Guide to Office Acoustics 2015, are used as design targets. On projects of value under £500K, should the project team not be able to proceed with the above good practices, it is to demonstrate how the acoustic quality of the spaces in scope respond to occupant comfort through the space planning, material finishes selected and user behaviour controls provided.	Acoustician / Architect / MEP	Design Stage	
79	D33	**GATEWAY CREDIT** Ventilation rates	**1**		This measure applies to mechanically ventilated spaces if the ventilation strategy is being changed, e.g. if the AHU is being replaced or new equipment is being installed. This measure applies to naturally ventilated spaces if the windows are being changed.	Ventilation rate is at least as good as the rates shown below for each of the spaces: Office space - 12 litres per person per second Retail space - 5 litres per person per second Changing/fitting rooms - 10 air changes per hour Toilets - 5 air changes per hour Corridor - 10 litres per person per second Gymnasium - 10 litres per person per second Laboratory - 10 litres per person per second Lecture halls - 10 litres per person per second Seminar rooms - 10 litres per person per second Teaching spaces - 10 litres per person per second For laboratory areas the air flow measures criteria of E30 Fume cupboard selection and operation can be used if applicable to the space use and facilities.	MEP	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
80	D77	Biophilic design	**1**		In scope for all projects.	Projects should achieve a minimum 3 of the following 6 criteria: 1. Daylighting and views out: • D39 Outside views is achieved; or • all workstations intended for non-transient workers are within seven metres of internal biophilic features such as green walls, water features, or vegetative scenes, and these features can be viewed from within 65 degrees rotation from the normal working position at those workstations; or • all occupied areas have access to natural daylight. 2. Fresh air: • D33 Ventilation rates is achieved; and • D40 CO2 monitors is achieved; or • D64 VOC monitors is achieved. 3. Lighting: • Lighting design utilizes the principles of varying intensities of light and shadow that change over time to create conditions that occur in nature. 4. Internal finishes, fittings and furniture utilize symbolic references to contoured, patterned, textured or numerical arrangements that persist in nature. 5. Refuge/prospect: all work and break areas are planned so that users sit with their backs at 2m maximum from a wall or low level screen and can view the point of entry and circulation into or through the space. 6. D62 Breakout space is achieved.	Design Team	Design Stage	
81	D31	Daylight glare control		**1**	Office, classroom, all workshop teaching and laboratory spaces: this measure applies if window coverings are specified or installed. Retail and exhibition/display spaces: this measure applies if VDUs are installed within 6m of an external window or adjacent to roof lights or sun pipes. This measure is in scope whether procured by a client direct or part of main build works contract.	For office, meeting, lab and all general teaching spaces all of the following criteria must be met: • occupant-controlled window coverings (typically blinds or screens) are fitted to the external windows and atria that receive sunlight directly or indirectly; • coverings are designed to provide optimum glare control and allow the best possible retention of views with the coverings drawn closed; • fabric screens, where specified, have a visual light transmittance (VLT) of less than 10% (excluding occasions that require blackout blinds); and • have solar protective coating (SPC) or Energy Solar Protective Coating (ESP). For spaces where visual display units (VDU) e.g. PC suites, library PCs, retail tills, ATMS are used one of the following criteria must be met: • the VDU must be positioned so that light from the window does not fall on it or cause reflections; • the VDU must be fitted with an anti-glare screen; or • the workspace must be provided with a screen that the staff can position to shield the VDU from the source of glare.	Architect	Design Stage	
82	D40	C02 monitors	**1**		This measure applies to occupied spaces, defined as interior spaces that are occupied by any person for 30 minutes or more at a time. This includes offices, meeting rooms and spaces where teaching and study will occur such as lecture halls, study rooms, computer labs, etc. Higher education specialist spaces such as labs, maintenance workshops that may have specific ventilation requirements to be an assessor and project based decision. Any areas adjacent to chemical storage areas that may or may not be occupied that are at risk of air seepage should be included in scope.	CO2 sensors are installed in all occupied spaces to control the mechanical ventilation, or automatic openable windows, to ensure that ventilation is increased when CO2 concentrations rise above 1000 parts per million (ppm). Where a BMS is in place or being installed as part of the fit-out, then the CO2 sensors should be linked to the BMS to provide an automated recording and analysing system. For smaller spaces that do not have a BMS or are naturally ventilated, a more basic system where sensors have to be manually monitored will be acceptable. For all systems, records should be kept that show CO2 levels have been recorded at least on a weekly basis, or more frequently if possible.	MEP	Design Stage	
83	D32	Occupant HVAC control		**1**	This measure applies only to those services (heating, ventilation and/or air conditioning) that have been installed as part of the fit-out, or modified and/or extended as part of an existing system. If no changes have been made to existing services, this measure should not form part of the assessment. Specialist areas that have specific temperature requirements are excluded from scope.	Faculty staff have the ability to adjust the temperature of different areas within the space via either local controls (e.g. thermostats, A/C room controls or radiator valves) or via access to the BMS. For areas where occupants have permanent workstations, local occupant controls are installed to enable occupants to adjust the temperature of different areas within the space.	MEP	Design Stage	

Number	ID	Name	Targeted 59	Potential 27	Scope	Criteria	Owner	Time Limitations	Evidence / Comments
84	D37	Fine air filters		1	This measure applies to all mechanically ventilated buildings. Where specialised areas such as laboratories or healthcare have a regulatory requirement they are excluded from scope.	Mechanical ventilation units are fitted with secondary filters; the filter class is between F6 and F9, with an efficiency of 70–98%.	MEP	Design Stage	
85	D63	Low-VOC finishes	1		This measure is in scope where one or more of the following products have been installed in the fit-out: • varnishes; • wood panels, timber structures, wood flooring; • resilient, textile and laminated floor coverings; • flooring and wall adhesives; • wall coverings; • suspended ceiling tiles; • joinery; or • furniture.	All products used in the fit-out have low or zero VOC emissions. The definition of 'low' VOC emissions is product dependent and is based on compliance with one of the standards below: The product has been awarded one of the following labels: • EMICODE – Levels 1 or 2. • Blue Angel. • M1. • Eurofins Indoor Air comfort GOLD standard. • Green Label Plus Classification. • Natureplus. Or The product has been tested to the following British Standards, and has passed: • Varnishes: BS EN 13300:2001. • Wood panels: EN 13986:2004. • Timber structures: EN 14080:2005. • Wood flooring: EN 14342:2005. • Floor coverings: EN 14041:2004. • Suspended ceiling tiles: EN 13964:2004. • Flooring adhesives: EN 13999-1:2007. • Adhesives for hanging flexible wall coverings: BS 3046:1981. • Wall-coverings: EN 233:1999, EN 234:1997, EN 259:2001, EN 266:1992. These products should all meet the requirement for formaldehyde E1 as tested to standard BS EN 717-1:2004.	Architect / Principal Contractor	Design Stage	
86	D64	VOC monitors		1	This measure is applicable to spaces that are regularly occupied by people, so includes office spaces, shops, kitchens, restaurants and breakout spaces, but not store rooms or corridors. In the higher education sector this will include all spaces other than corridors, plant rooms, and storage rooms. Higher education spaces such as labs, workshops (not necessarily teaching, but service or research areas and maintenance spaces) may have specific ventilation requirements. Any areas adjacent to chemical storage areas at risk of air seepage should be included.	Install a system for monitoring and recording volatile organic compound (VOC) concentrations in fit-out spaces that are occupied by any person for 30 minutes or more at a time. To encourage projects to target this measure, the number and concentration of VOC monitors to be installed is defined by the risk of VOC emissions in that space: • High risk areas: these are defined as interior spaces (or occupied rooms adjacent to) such as laboratories, maintenance rooms, or any other space in which chemicals will be used, or where there is a high concentration of newly installed furniture, fittings of finishing's in confined spaces comparative to the room size, with no openable windows. Individual VOC sensor should be installed in each room. • Normal risk: all other spaces. The number of VOC monitors to be installed should provide sufficient data to act as a guide for that type of space. For example, one VOC sensor could be installed in one open plan office space that is indicative of the fit-out of that type of space. Where a BMS is in place or being installed as part of the fit-out, then the VOC sensors should be linked to the BMS to provide an automated recording and analysing system. For smaller spaces that do not have a BMS, a more basic system where sensors have to be manually monitored would be acceptable. For both systems, records should be kept that show VOC levels have been recorded at least on a weekly basis, or more frequently if possible.	MEP	Design Stage	
87	P12	Fit-out VOC monitoring	1		In scope for all projects.	During the fit-out process, monitor volatile organic compound (VOC) concentrations in the fit-out space. Records are kept and the site manager regularly reviews the VOC levels. Meter readings are taken at a frequency appropriate (at least once a fortnight) to the project programme with at least 5 measurements taken.	Principal Contractor	Construction Stage	