

How can participants decide what energy uses should be allocated to each organisational purpose?

Transport

Transport is defined within the ESOS regulations with reference to the Vehicle Excise and Registration Act 1994 and details are set out in section 4.3.4 of ESOS guidance.

Forklifts which are never used on public roads are not required to be registered under the Act and are not in the category of exempt vehicles, meaning that under ESOS regulations they are not categorised as vehicles. Forklifts (and other similar vehicles which are not required to be registered under the Vehicle Excise and Registration Act 1994 and are not in the category of exempt vehicles under that Act) should be categorised as 'other energy use' since they do not fit under building or industrial process energy use.

Buildings

Buildings are not specifically defined in ESOS legislation, so for any case which this guidance does not address, lead assessors and participants should use their best judgement.

In general, a building means a roofed construction having walls, and energy that is used within buildings should be considered building energy use, unless it is for an industrial process.

Building energy use includes energy for buildings services, such as HVAC, lighting, lifts, security etc, but also for activities commonly carried out in buildings for non-industrial purposes, e.g. IT and communications, cooking, refrigeration, vending machines, small power, entertainment etc. It would also include commercial energy uses which are non-industrial and are commonly carried out in buildings e.g. swimming pools, leisure, catering, scientific equipment.

An indicative list of energy use associated with buildings, which is not exhaustive, can be found in Annex C of PAS 51215:2014. This is reproduced below.

Industrial processes

Industrial processes are not specifically defined in ESOS legislation, so for any case which this guidance does not address, lead assessors and participants should use their best judgement.

In general, industrial processes may be considered processes which involve the extraction, growth, refining, processing, production, manufacture or preparation of materials, plants, livestock, animal products, food or other products with a view to their commercial use.

Whether a process is carried out inside a building or not does not determine whether it is an industrial process.

An indicative list of energy use associated with industrial processes, which is not exhaustive, can be found in Annex C of PAS 51215:2014. This is reproduced below.

Other energy uses

Other energy use is specifically defined in ESOS legislation in relation to energy that does not fall under buildings, transport or industrial processes.

In practice this means it covers energy use that is covered by all of the below:

- Does not take place within a building or used to provide energy for a specific building

- Does not relate to a energy used by a road going vehicle, a vessel, an aircraft or a train
- Does not relate to an industrial process (An indicative list of energy use associated with industrial processes, which is not exhaustive, can be found in Annex C of PAS 51215:2014 and is reproduced below)

An onsite back-up generator used to provide power for a specific building would be building energy use, but a generator that is frequently moved and used for different purposes or buildings, e.g. in construction works, is not building energy use.

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Annex C of PAS 51215

Details of Annex C of PAS 51215 in relation to buildings and industrial processes have been reproduced here for the purpose of ESOS guidance with the kind permission of BSI. Transport text from PAS 51215 has not been included, as there is a definition of transport within ESOS regulations.

PAS 51215 text:

Some examples of energy use associated with buildings are:

- space heating;
- refrigeration for space cooling;
- hot water;
- fans for ventilation;
- pumps;
- controls;
- humidification and de-humidification;
- lighting (internal);
- lighting (external);
- small power equipment;
- ICT equipment (e.g. servers);
- vertical transport;
- cooking (including bakery ovens);
- catering – distributed (e.g. vending machines);
- refrigeration for cold storage (e.g. food);
- entertainment equipment;
- laundry;
- medical equipment;

- laboratory equipment;
- swimming pool.

Some examples of energy use associated to industrial processes are:

- humidification and dehumidification processes;
- boiling, evaporation and condensation processes;
- chilled water/chilled glycol systems;
- compressed air systems;
- furnaces;
- blast chilling and freezing processes;
- conveyor and material handling systems;
- cooling systems (dry, wet and evaporative);
- distillation, absorption, adsorption and separation processes;
- hot water systems;
- drying processes;
- fan systems;
- furnace and combustion systems;
- heat exchange networks;
- heating systems (low pressure, medium pressure and high pressure);
- industrial gases;
- insulation;
- mixing systems;
- motors and drive systems;
- power generation and distribution;
- pumps and hydraulic systems;
- refrigeration systems;
- steam and condensate systems;
- vacuum systems;
- water and wastewater treatment.
- human interface and control systems for energy use;

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