RETAIL ENERGY CODE

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I0265 – THEFT CALCULATOR USAGE AND SUITABILITY ASSESSMENT – PRE-WORKING GROUP RESPONSES

1	**Case Types & Complexity** **Please provide 2–3 examples of non-domestic theft cases where the current calculator did not fully support your assessment.**
	We struggled to respond to this question as we feel the calculator is already suitable for our purposes. Although there are additional appliances that could be added, we understand that it isn't feasible to cover every possible scenario.
	The current calculator generally does not support our assessments of confirmed non-domestic power theft. There is too much mandatory criteria to populate, and much of the information required to calculate consumption or build profiles is not accessible during investigations. As a result, the calculator cannot be reliably used in many cases.
	We normally receive an estimated usage from the engineer that attended site when a theft is found.
	- An event hall, used for hosting events like; weddings, birthday parties etc. As the hall was not open every day, only when events were on, using the timings given for commercial properties wasn't suitable. The baseline calculator needed to be used in this case, but if no readings had been available previously, this would not have been possible. - Hours per day need to be increased. We have come across 24/7 off-licenses with tampered meters, but the maximum opening hours we can set in the calculator is 16 hours.
	Note customer/business name and MPXN have been removed. Example A – This electric theft calculator was for a pizza takeaway type business. All appliances were electric. Method used was appliances, but you can see we were unable to assess losses for the main appliance a 2 tier/level electric pizza conveyor oven and also 2 x ceiling mounted air con units, CCTV, Tills. With there being no industry approved way to address this issue the appliances were not part of the final loss calculations. Meaning it is highly likely the business was under assessed for the abstraction that had taken place over a 3-4 month period.

	No other example have been submitted at this time as the majority completed in-house have been based on pre and post theft baseline methods for the year of 2025. Our clients hold all previous loss assessments for 2024/25.
	Commercial Cannabis Farms – Bakeries

2	**Data & Appliance Gaps** **In non-domestic cases, what types of appliances, equipment, or site configurations are most difficult to assess using the current calculator and why?**
	Here are some examples of equipment for which we currently have no input options in the calculator: - computers - card machines - washing machines - chest freezers - large industrial dough mixers - TVs - CCTV systems - air conditioners - vacuum cleaners - jet sprays - extraction systems - potato-peeler machines - music systems - glass washers - cooling fans - alarm systems - chicken warmers - commercial lifts - electric shutters. Mostly associated with takeaway shops.
	The calculator's structure makes the process of estimating consumption difficult due to its own constraints. In many non-domestic cases, information about the equipment or appliances on site is either incomplete or unavailable. Without this data, the calculator is unable to generate a consumption profile, which prevents its effective use.
	n/a
	Most of the appliance types can be difficult to assess on such a specific scale. In many cases, engineers are not welcome on site and conditions can be hostile. Therefore, it is not practical or safe to get a full equipment list. We need to ensure the calculator has a function to make an equipment assumption based on the business type, for cases where a full equipment list cannot be obtained.

2	**Data & Appliance Gaps** **In non-domestic cases, what types of appliances, equipment, or site configurations are most difficult to assess using the current calculator and why?**
	This question feels best placed for I&C specialised suppliers.
	The current appliance list on gas and electric appears to be predominately based on takeaway and restaurant kitchen appliances / white goods with a few exceptions. It is understood that historically these are the businesses identified as the main types where the majority of energy theft has been identified. But over recent years it has been proven the issue is much wider spread. Other appliances (but not limited to) commonly found at establishments which are currently unavailable on the appliance list and therefore we are unable to assess losses on are; Electric Pizza oven - standard and conveyor (based on size and number of decks/levels) Electric Wok/burners (based on number of burners and type of burner) TV/Monitors / CCTV / Tills / Lottery & cash machines. Air conditioning - ceiling / wall / freestanding. (Would commercial/industry air con need to be based on number of items or floor space?) Commercial grade Washing machine, Washer/Dryers - Gas and Electric. Hospitals, dentist, clinics with an endless list of medical and diagnostic machinery. Sunbeds upright and horizontal, spray booths. Compressors / Pumps, Car lifts, Spray booths/units/kilns. (Would commercial/industry spray booth and/or kilns need to be based on individual items or floor space?) Within the industrial sector a myriad of industrial machines/equipment; conveyor belts, CNC cutting / drilling, presses / imprinting etc. All not on the list. But appreciate the appliance lists could be endless. On this maybe a much needed 'custom' tab/section where we can list the name/type of the appliance and then manually apply the specific appliance Amps usage (which can be sourced via manufacturers plates/labels or online). ***Question** – With the business types being seen and selected on the heating tab of the electric theft calculator (different to the gas calculator) does this affect the calculations in any way or is it simply for documenting/recording purposes?
	Commercial gas appliances are fixed at 25% increments; quartile percentages are not always suitable. Multi type businesses sharing one meter, no option for split business type.

3	**Business Type / Site Classification** **Are there business types or property categories you frequently encounter that are not reflected in the current calculator? Please provide examples.**
	Restaurants and Takeaway shops like Chicken Shops, Kebab houses etc. Also an upturn in barber shops and tyre fitting establishments.
	To date, our confirmed theft assessments have been supported sufficiently by baseline reads.
	n/a
	Warehouses that sell items like carpet, which require little usage beyond lighting and heating are difficult to classify in the calculator. It could be useful to have 'shops-other' and we can then input the shop size. This could also be used for shops like greeting card stores. Conversely, there is no specific business type for mechanics/garages, which I assume use a significant amount of energy and could have an extensive equipment list.
	Other business types or property categories encountered and not listed (Both Gas and Electric calculator should show identical business types options – as they currently do not) Laundrettes, Sunbed shops, Car garages, Car wash, Hotels/B&B, Farms, Commercial & Industry units/business types – Storage, Food production, manufacturing, hospitality/tourism, retail, agricultural etc.
	Tanning salons - launderettes/ commercial dry cleaning – Garages/ vehicle repair

4	**Investigation & Evidence** **Is there any information obtained during investigations that cannot currently be reflected in the calculator? If so, what?**
	Other than appliances as mentioned above no.
	There is no specific investigation information that I am aware of that cannot be represented within the calculator; however, the concerns highlighted in the previous answers should be taken into account, as they impact our ability to use the tool effectively. Additional aspects currently missing from the calculator The following investigation findings and practical issues cannot be adequately captured or reflected within the current calculator: Custom or non-standard appliances such as bespoke cookers, specialist refrigeration units, CHP (combined heat & power) systems, industrial ovens, and furnaces. These vary significantly in design and load, making them difficult to document or estimate accurately within the current calculator format.

4	**Investigation & Evidence** **Is there any information obtained during investigations that cannot currently be reflected in the calculator? If so, what?**
	Factory and industrial usage ranges are extremely broad, and the calculator does not provide a practical way to record or model these variations. In many cases, there is no clear method for documenting large or atypical operational loads. Mandatory field prompts are excessive, and many fields cannot be populated due to lack of accessible information during investigations. This creates barriers to completing the calculator even when partial data is available. The tool needs to be simpler and clearer, with fewer compulsory inputs in situations where details cannot reasonably be obtained. Leaving fields blank affects the calculation, and the calculator does not allow "N/A" or empty fields without preventing progress. Allowing "N/A" where appropriate would significantly improve usability.
	n/a
	n/a
	a) Referring to question 2, the absence of specific appliances/equipment. b) The claimed amount/length of time appliances might be operational for. There is the option on the gas calculator to select the usage as a percentage which is great if the information given by the business is correct. There are no options similar to this on the electric calculator. ***Question** - If we believe the information regarding the amount/length of time appliances might be operational for, is there an industry agreed percentage we should/can default the calculations to? c) However, in terms of trying to present a fair and accurate loss assessment based on the businesses consumption where there are geographical factors - For example even though one business type may be the same specifications (i.e. floor area and/or appliances) as another, one could be in rural parts of the UK and the other could be in a very busy urban area – maybe next to a specific venue or tube station in a city and thus have a massive difference in consumption due to the much higher volume of customer/foot traffic. Currently the only way maybe to address this is via the 'customers per hour' option but in the majority of cases trying to source this info would be impossible as it would be unlikely the business will give an honest and accurate answer on this.
	Appliance list is not all encompassing, a custom appliance button to input KWH ratings would prove beneficial.