WRAP Review of Suitable Applications for Compostable Plastic Packaging ----- Final REA response, 30/01/2025

https://forms.office.com/pages/responsepage.aspx?id=gdkPhdRHq0mXW9n-8KW0UpM_fgnqcyxHtC1-RK9txpxUQ0hZQk04VkJOOFhTUFVNMURDRFFDSEZQVi4u&route=shorturl

WRAP Review of Suitable Applications for Compostable Plastic Packaging

WRAP is reviewing its Compostable Plastic Packaging Guidance.

This includes a review of key potential applications suitable for compostable plastics. This form is seeking UKPP member views towards an updated list of applications, with new applications to the list marked [NEW].

Please respond with whether you think the application is suitable or not suitable to be made of certified industrially compostable plastic, plus reasoning.

Engagement with waste industry and stakeholders on reasoning for the suggested items includes:

- · Enables increased food waste capture.
- · Current common contaminant in organic/bio-waste streams.
- Are difficult to sort / separate / remove from waste streams.
- · Forms part of the food waste collection system.
- . Will be food contaminated, contain food waste, and / or be attached directly to food waste.
- · Too small, multi-layer complex structure, and / or hard to recycle.
- · Attached directly to food waste items (e.g. skins and peels).

We are aware of issues with collection, sorting, and treatment of these materials at appropriate waste management sites and seek your views on this. These items are suggested for review but in line with the waste hierarchy, prioritising reduction and reuse first. The list is not necessarily exhaustive.

If you would like to discuss this survey or this topic area in more detail, please contact: Thomas Baken@WRAP.ngo

The current guidance document is available at: https://www.wrap.ngp/resources/guide/compostable-plastic-packaging-guidance

1.	Your name *
	Emily Nichols
2.	Your organisation *
	Renewable Energy Association

		by [NEW]	
	Suitable	No opinion	Not suitable
Food waste caddy liners (incl. carrier / fruit & veg bags where reused as such)	•	0	0
Fruit & veg stickers	•	0	0
Tea & coffee bags	•	0	0
Coffee pods (if not metal)		0	0
Hot food ready meal trays & films (where irrevocably food contaminated)	0		0
EW] Cling film for food kaging	•	0	0
EW] Small format and / or lti-layer food packaging / pppers (<40x40mm, e.g. eet twist wraps)	•	0	0
EW] Food condiment hets	•	0	0
EW] Hot & cold drink cups ids	•	0	0
EW] Plastic coffee pads /	•	0	0
EW] Fruit net bags	0	0	

4. Please add any comments you wish to make here

REA's comments will be sent to WRAP contact via email before survey's deadline. Our comments are too long to fit in this box.

(Section below included in this Word doc, emailed to WRAP.)

4. Please add any comments you wish to make here

N.B.: REA was advised that WRAP's survey is considering Business-to-Consumer (B-2-C) uses of compostables and kerbside (e.g. local authority collections) / Closed Loop Environments (CLEs). Below where we have written 'compostable' this means independently certified compliant with at least one of the standards EN 13432, EN 14995 or ASTM D6500 (for industrially compostable packaging/plastics), unless we have stated otherwise.

FW CADDY LINERS: Suitable. This product format enables collection of higher annual tonnages of food wastes from LA kerbside, B-2-C and CLE sources and higher annual tonnages of the food part of commingled food+garden wastes from households, compared with not using FW caddy liners.

Where these waste streams go to IVC: pre-treatment machinery shreds food waste and liners and they are fed into the composting process, so it's important that LA food wastes, and B-2-C and CLE sources that generate/target 'food+compostable items' wastes are only collected in compostable liners.

Where these waste streams go to 'dry'-AD with at least one following composting phase: such processes are capable of breaking down compostable FW caddy liners and at least one is operating in the UK that is technically able to feed them in (operator concern about contamination by non-compostable plastics, that look too similar to compostable plastics, is a barrier to feeding in compostable FW caddy liners).

Where these waste streams go to wet-AD without a pre-AD Thermal Pressure Hydrolysis (TPH) unit: most facilities likely to be accepting mainly polyethylene plastic caddy liners and some 'degradable'/'biodegradable'/'oxo-biodegradable' caddy liners, which are unsuitable for feeding into any kind of organic recycling process. (N.B.: 'Biodegradable' claims on/about a product must NOT be interpreted as it being 'Industrially Compostable' nor 'Home Compostable.) Depackaging/bag-splitting machinery is imperfect in removing packaging/bags. Minimisation of environmentally-persistent plastics in digestate should be prioritised; this would be aided by use of compostable FW caddy liners and given that most of these would be front-end removed at the facility types described at the beginning of this paragraph, and sent to EfW facilities (in at least in the short to medium term), overall this would be better than the current 'any liner type is suitable' approach. Limits on ANY types of plastics ≥ 2 mm in certified digestates (and composts) will be considerably tightened over the next (approx. 2 years).

N.B.: paper liner products designed for use as kitchen caddy/food bin liners and that have glued seams, printed-on ink and/or any pigment added to colour the paper must be certified industrially compostable, as too must multi-material bread bags if recommended for last use as a kitchen caddy/food bin liner. Newspaper sheets reused for lining kitchen caddies/food bins are not required to be certified industrially compostable. We would be happy to discuss with paper bread bags with WRAP, if stakeholders are recommending they are reused as kitchen caddy/food bin liners.

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FRUIT & VEG STCKERS: Suitable. Are attached directly to the skins/peels of individually purchasable fruit/veg and tend not to be removed by consumers before they discard inedible skins/peels or fruit/veg items that are rotten or partially rotten. These stickers are flexible and so small that they'll pass through pre-treatment machinery into IVC or AD, therefore important they're certified industrially compostable fruit & veg stickers. Not easy to screen out during compost/digestate screening or to remove from Separated Fibre Digestate if SFD is obtained using a centrifuge. Noncompostable F&V stickers are likely to include manufactured polymers that would persist in soils if they reach soils via composts/digestates, and could include inks or pigmented materials whose concentrations of Potentially Toxic Elements are higher than limits set in standards for industrially compostable items and standards for home compostable items. There is an International Compost Alliance project underway to agree an international standard for industrially compostable Price-Look-Up stickers for fruit and vegetables; in the meantime, the REA recommends that organisations who place them on the UK market should asap get - or should continue to have - them independently certified compliant with at least one of EN 13432, EN 14995 or ASTM D6500 (standards for industrially compostable items) and recommends they are also independently certified compliant with at least one of EN 17427, AS 5810-2010, NF T51-800 (standards for home compostable items) or TÜV Austria's certification requirements for home compostable packaging under their 'OK compost HOME' scheme.

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TEA & COFFEE BAGS: Suitable. Mostly the same considerations apply as for F&V stickers even though tea and coffee bags tend to be larger. Ink and pigment benefits of certified industrially compostable versions are applicable for tea / coffee bags that have label (label usually attached a string). Compostable tea bags are included in the list of compostable items allowed to be composted in facilities that do not have APHA approval under animal by-products regulations, where only milk and cream fit for human consumption have been in contact with those items (https://www.r-e-a.net/resources/specific-compostables-allowed-into-facilities-without-abpr-approvals/).

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COFFEE PADS: Suitable. Same considerations as for compostable coffee bags and assume compostable coffee pads would be made of same materials types. On-line info appears to show they are similar size as coffee bags.

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COFFEE FILTERS: Suitable. Not recyclable via dry recyclable household waste stream (due to contamination by spent coffee grounds and soaked-in coffee liquid) but this and the used coffee filter would not be 'contaminant' in food waste or commingled food+garden waste streams. At IVC facilities the filters and whatever is stuck to/soaked into them would pass through pre-treatment machinery (shredder) into the composting process and all should break down sufficiently quickly; same in a facility using a shredder for FW+GW and biodegrading the shredded waste using 'dry'-AD with at least one following composting phase. A TPH unit as part of pre-treatment for wet-AD seems likely to turn compostable coffee filters into a digestible pulp (if they behave the same as shown for fibre-based-composite certified compostable food service-ware, researched as part of a recent IUK

funded project and summarised in Part 1 of REA's report available at https://www.r-e-a.net/resources/management-of-compostables/). Wet-AD without a pre-AD TPH unit: uncertain whether depackaging machinery would remove used coffee filters (size, weight and flexibility are all factors that affect whether an item is removed or passes through the machine or becomes size-reduced in the machine); could assume majority of compostable coffee filter papers would be removed by depackaging machinery and sent to EfW facilities (in at least in the short to medium term); would LCA determine that this fate for compostable coffee filter papers would have a lower overall adverse impact than non-compostable coffee filter papers? Most of the latter type seem likely to be going into residual waste bins with fate of being landfilled or combusted in EfW facilities.

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COFFEE PODS (if not metal): Suitable for treatment in IVC (included in the IVC trial that was part of Compostable Coalition UK's research project, report awaited, website https://compostableuk.info/our-research/). Should also be suitable for treatment in 'dry'-AD with at least one following composting phase. Coffee pods contain spent coffee when discarded, so compostable coffee pods bring extra food waste to organic recycling. Already included in some CLE arrangements where the collected food+compostable items waste stream goes to IVC. A TPH unit as part of pre-treatment for wet-AD would turn compostable coffee pod bodies and their contents into digestible material that contributes to biomethane production; this was researched as part of a recent IUK funded project and summarised in Part 1 of REA's report available at https://www.r-ea.net/resources/management-of-compostables/). Wet-AD without a pre-AD TPH unit: uncertain whether depackaging machinery would remove used compostable coffee pods (size, weight and flexibility are all factors that affect whether an item is removed or passes through the machine or becomes size-reduced in the machine. Podback scheme provided to householders in some LA areas is collecting non-compostable coffee pods, separating pod bodies and lids from spent coffee contents, sending bodies and lids to appropriate recyclers and sending spent coffee contents to wet-AD; could explore potential expansion of scheme to include compostable coffee pods and their organic recycling. Compostable coffee pods included in some CLE food waste+compostable items collections, the waste streams going to IVC. Compostable coffee pods are included in the list of compostable items allowed to be composted in facilities that do not have APHA approval under animal by-products regulations, where only milk and cream fit for human consumption have been in contact with those items (https://www.r-e-a.net/resources/specific-compostables-allowed-intofacilities-without-abpr-approvals/).

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HOT READY MEAL TRAYS & FILMS (WHERE IRREVOCABLY FOOD CONTAMINATED): No opinion.

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CLING FILM FOR FOOD PACKAGING: Suitable. Potential for compostable cling film to replace non-compostable equivalents at household/LA food-relevant sources, kitchens at CLE food-service sources and kitchens at CLE office food waste sources. Likely at least some FW bin users forget to remove clingfilm before binning the food inside the clingfilm (e.g. uneaten sandwiches), or are not aware they should remove non-compostable clingfilm before putting food in a FW bin, or are aware

but choose not to. At IVC facilities cling-film (and any food waste inside) would pass through the shredder into the composting process and certified industrially compostable clingfilm should break down sufficiently quickly. The latter product type should also be suitable for treatment in 'dry'-AD with at least one following composting phase (systems designed mainly for FW+GW and that use a shredder for waste pre-treatment).

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SMALL FORMAT AND / OR MULTI-LAYER FOOD PACKAGING / WRAPPERS (< 40x40 mm, E.G. SWEET TWIST WRAPS): Suitable if this means small format food packaging or small format wrappers not exceeding the dimensions stated. Suitable because non-compostable versions are unlikely to be selected from dry-recyclable waste streams in MRFs for 'material recycling', while compostable versions are likely to become at least partly shredded at IVC facilities, pass into the composting process and break down. They are likely to become at least partially shredded at shredder-equipped 'dry'-AD facilities and breakdown in such facilities that also have at least one following composting phase. Multi-layer food packaging: certified industrially compostable multilayer food packaging is being produced, e.g. crisp packets by at least one brand placing them on the UK market. If this NEW suggestion includes multi-layer food packaging of any size we question how many tonnes of it would be likely to be delivered to IVCs and 'dry-AD facilities with a following composting phase on an annual basis; would need to check it's a manageable tonnage amongst the facilities that would accept it or are likely to. Alternatively, if the NEW suggestion for multi-layer food packaging is also restricted to such products whose dimensions do not exceed 40 x 40 mm then annual tonnage of these waste arisings seems likely to be relatively low and manageable amongst participating organic waste recycling facilities.

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FOOD CONDIMENT SACHETS: Suitable. Those containing 'wet' food are likely to contain some food residue when discarded (unlikely to be washed before discard, even in household kerbside food waste streams) and tend to be small format products that may not be large enough to be selected from dry-recyclable waste streams in 'clean' MRFs or from residual waste streams in 'dirty' MRFs. Compostable versions are likely to become at least partly shredded at IVC facilities, pass into the composting process and break down. They are likely to become at least partially shredded at shredder-equipped 'dry'-AD facilities and breakdown in such facilities that also have at least one following composting phase.

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HOT AND COLD DRINK CUPS AND LIDS: Suitable when collected by themselves or with other compostable food service ware and/or food waste from CLE sources, where the collection is delivered to an organic waste facility type that is currently capable of organically recycling them and has a policy of accepting them. If B-2-C sources include compostable hot and cold drink cups and lids bought for consumption On-The-Go and they're taken into offices that have a FW+used compostable items waste collection, or a dedicated 'used compostable items' collection, these sources are also likely to be suitable, subject to sufficient office worker training, good practice signage on bins for the office's wastes and initial and periodic checks on the FW/compostable items

bins' contents. Such used items are suitable for treatment in IVC (they were included in the IVC trial that was part of Compostable Coalition UK's research project, report awaited, website https://compostableuk.info/our-research/). They are already included in some CLE arrangements where the collected food+compostable items waste stream goes to IVC. They should also be suitable for treatment in 'dry'-AD with at least one following composting phase. A TPH unit as part of pretreatment for wet-AD would turn compostable hot and cold drink cups and lids into digestible material that contributes to biomethane production; this was researched as part of a recent IUK funded project and summarised in Part 1 of REA's report available at https://www.r-e-a.net/resources/management-of-compostables/). Wet-AD without a pre-AD TPH unit: seems likely that current depackaging machinery would remove compostable hot and cold drinks cups and lids due to these items' dimensions and rigidity. Compostable hot and cold drinks cups and lids are included in the list of compostable items allowed to be composted in facilities that do not have APHA approval under animal by-products regulations, where only milk and cream fit for human consumption have been in contact with those items (https://www.r-e-a.net/resources/specific-compostables-allowed-into-facilities-without-abpr-approvals/).

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FRUIT NET BAGS: Unsuitable. WRAP and relevant UK Plastics Pact members are working towards selling most retailed fresh produce types not inside packaging, e.g. not in fruit net bags. We cannot think of a fruit type that's currently sold in nets that would be unsuitable to bear a compostable sticker (for identifying the fruit and its corresponding price) or that is unsuitable to be put into a compostable fruit/veg bag provided at/near where the fruit is displayed for sale. The same applies to fruit sold/supplied for consumption in CLEs.

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An operator's general points about compostable packaging

One of REA's waste treatment operator members, to whom we send our draft response to this consultation, has carried out trials on the certified compostable packaging. The member fed back that 'the material still exists in our final product' and 'they do not break down in our process'. The member added: 'Therefore, the compostable plastic in the final product sample would fail because the laboratories [that test compost samples] do not distinguish between non-compostable and compostable plastics.' This member's view is that 'we are setting IVC composters up to have a lot of failed [compost] batches if they see an increase in compostable packaging in the inputs.' We have, on the day of WRAP's survey deadline, invited our member to send us info about their composting processes and their perception about which product formats are packaging; we will check whether the member allows us to later share anonymised info with WRAP.