

Review of solid biomass classifications

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Background

Detailed renewables energy balances are presented annually in Table [DUKES 6.1](#).

Currently there are three categories for solid biomass (excluding animal biomass); wood, waste wood, and plant biomass.

Historically, domestic solid biomass consumption has been allocated to wood, with non-domestic consumption being allocated to waste wood, i.e. classification was based on final consumer rather than the actual feedstock. Plant biomass then includes a wide variety of fuels ranging from wood pellets, energy crops, to lesser used fuels such as paper and sewage sludge. It also includes solid biomass of unknown origin and properties.

Case for review

There have been some recent improvements in data sources which have resulted in better knowledge of the feedstocks. For example, recent [domestic consumption surveys](#) by The Department for the Environment and Rural Affairs (Defra), have indicated solid biofuel consumption is only around 75 per cent wood, with the remainder being wood pellets and waste (post-consumer) wood.

Additionally, in 2025, the United Nations Statistics Division (UNSD) launched a consultation on its [Standard International Energy Products Classification \(SIEC\)](#). Following the consultation, a draft outline of proposed categories has been published. Whilst not yet finalised, its overall direction for solid biofuels is unlikely to change considerably.

The SIEC proposal

One of the most significant changes in the proposal is the introduction of an 'other solid biomass' category. This will include solid biomass of unknown origin, and post-consumer waste wood. This will be an important distinction going forward between wood that has been used previously for non-energy purposes, and virgin wood or offcuts of wood from either forestry or processing.

In the context of the UK, incorporating the full breakdown in the SIEC proposal will be impracticable. We therefore propose aggregating by feedstock (except for pellets and briquettes) so that fuels with similar properties would be grouped together, and to increase the number of categories in DUKES 6.1 from three to four; wood, non-woody biomass, pellets and briquettes, and other solid biofuels.

The table below shows a high-level summary of the proposed SIEC categories and how they relate to the current and proposed categories for DUKES 6.1.

SIEC description	Proposed DUKES categories	Previous categories
Fuel wood Logging residues Other harvested woody biomass Solid wood processing residues	Wood	Wood (domestic) Waste wood (non-domestic)
Bagasse Black liquor Energy crops Oil plant residues Other biomass processing residues Other harvested non-wood residues Plant husks Plant shells Straw	Non-woody biomass	Plant biomass Wood (domestic) Waste wood (non-domestic)
Oil cakes Other biomass pellets and briquettes Wood pellets and briquettes	Pellets and briquettes	
Unknown fuel type	Other solid biofuels	Plant biomass
Post consumer waste wood		Wood (domestic) Waste wood (non-domestic) Plant biomass

Pellets and briquettes will have their own category regardless of whether they are wood pellets or oil cakes, in keeping with the SIEC principle. Current data sources support this, and there is high interest given the large quantities being consumed for electricity generation.

In addition to post-consumer wood, the 'other' category would include 'unknowns', where the fuel type has been reported as simply 'biomass'. Fuels which don't naturally fall into the other three categories such as paper and sewage sludge, would also be included here.

The table below reproduces DUKES 6.1, comparing the published figures for reference year 2024, and using the proposed classifications.

In addition to reclassifying fuels, further work has been undertaken to better allocate consumption across sectors. The data presented should be taken as indicative of the potential magnitude of the shifts across both fuels and sectors. Assessment of the data is ongoing, [and we welcome feedback from users](#) which we will consider whilst further refining the statistics.

Indicative impact of proposed changes on DUKES 6.1

2024	Wood	Waste wood	Plant biomass	Total	Wood	Non woody biomass	Pellets & briquettes	Other solid biomass	Total	Total impact	Percent impact
Production	934	403	3,290	4,627	1,376	237	1,023	1,856	4,491	-136	-3%
Imports	102	57	4,163	4,322	152	0	4,163	11	4,325	3	0%
Exports	-2	-163	-6	-171	-152	0	-6	-29	-187	-16	10%
Total demand	1,035	298	7,447	8,779	1,375	237	5,179	1,838	8,630	-149	-2%
Transformation	0	34	6,014	6,048	118	207	5,094	588	6,007	-41	-1%
Electricity generation	0	0	5,877	5,877	5	203	5,094	560	5,862		
Major power producers	0	0	4,179	4,179	0	189	3,990	0	4,179		
Auto generators	0	0	1,699	1,699	5	14	1,104	560	1,683		
Heat generation	0	34	137	171	114	4	0	28	145		
Final consumption	1,035	264	1,433	2,731	1,257	30	85	1,250	2,622	-109	-4%
Industry	0	177	1,212	1,389	515	16	9	549	1,089	-300	-22%
Unclassified			522	522						-522	-100%
Iron and steel				0						0	
Non-ferrous metals				0						0	
Mineral products			264	264			3	251	254	-11	-4%
Chemicals			33	33				10	10	-24	-70%
Mechanical engineering				0				3	3	3	
Electrical engineering				0						0	
Vehicles				0						0	
Food, beverages		7	48	55	15	16	7	35	72	17	32%
Textiles, leather				0						0	
Paper, printing		27	344	371	353			73	426	55	15%
Other industries		143		143	146			174	320	178	124%
Construction				0				4	4	4	
Other	1,035	87	221	1,342	743	14	76	701	1,534	192	14%
Domestic	1,035			1,035	715	14	76	230	1,035	0	0%
Public administration			1	1				36	36	35	
Commercial		47	141	188	21			160	181	-7	-4%
Agriculture		40	78	118	7			275	282	164	139%
Miscellaneous			0	0							

Note; These data are highly indicative of the potential magnitude of changes and are subject to further quality assurance. This may result in differences and reallocations when published in DUKES (July 2026).

The key differences arising from the proposed reclassification are

- Industrial consumption has fallen overall as 'unclassified' has been allocated across industrial sectors and 'other' final consumers, most notably in agriculture, (which has correspondingly increased).
- A proportion of domestic consumption has moved to 'other biomass' as the waste wood category in the most recent Defra domestic combustion survey doesn't distinguish between wood residues and post-consumer waste wood; under the proposed classifications, should this split become available, the former would be allocated to wood and the latter to 'other solid biomass'.
- Total consumption has fallen slightly following a deeper review of some of the historical evidence which included better data matching with other data sources to remove some double counting. Further work in the space is ongoing, and we anticipate some additional changes as a result of this.

User Feedback

As we are considering implementing the changes to Table 6.1 for this year's edition of DUKES in July 2026, we are inviting feedback now on the scope of this work in terms of the fuel classifications, and the type of feedstock included in each, bearing in mind increasing the number of categories from three to four is realistically the limit.

If you would like to provide feedback setting out any concerns or issues, please contact us at renewablesstatistics@energysecurity.gov.uk.



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