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# Guidance on the classification of biomass: *categories and NTA 8003 codes under the SDE+ scheme*

**Guidelines for energy producers and conformity assessment bodies**

Commissioned by the ministry of Economic Affairs and Climate Policy







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# 1. Introduction

The Sustainable Energy Production Incentive Scheme (SDE+) promotes the production of various categories of bioenergy. A condition applicable to an SDE+ subsidy for a number of these categories is that they must comply with sustainability requirements. The sustainability requirements are set out in the Regulation on the Conformity Assessment of Solid Biomass for Energy Applications (*Regeling conformiteitsbeoordeling vaste biomassa voor energietoepassingen*) accompanying the Decree on the Conformity Assessment of Solid Biomass for Energy Applications (*Besluit conformiteitsbeoordeling vaste biomassa voor energietoepassingen*).

In order to demonstrate the sustainability of the biomass used, bioenergy producers are required to have a conformity year statement drawn up by a conformity assessment body (CAB). To obtain this statement, a list of biomass consignments is also required to be submitted. The list of biomass consignments should show into which category the biomass falls. The Decree on the Conformity Assessment of Solid Biomass for Energy Applications distinguishes five categories of biomass, to which different sustainability requirements apply. In addition, the NTA 8003 codes should be specified for the biomass used.

This guidance document clarifies which types of biomass fall into one of the five biomass categories under the Decree, and the relationship with the NTA 8003 codes. It also clarifies which link in the biomass chain should determine into which category the biomass falls and therefore which sustainability requirements should be met.

The target group of this guidance document are economic operators that determine the biomass category and the NTA 8003 code, and CABs that verify the classification.

Chapter 2 defines general principles for the classification of biomass. Chapter 3 provides further information on Category 1 and 2 biomass from Forest Management Units. Chapter 4 clarifies what biomass residues in Categories 3-5 are understood to mean.

## 2. Biomass classification principles

### 2.1 General

An energy producer that would like to obtain an SDE+ subsidy for generating renewable energy from sustainable biomass is required to have a conformity statement drawn up for this purpose each year. This includes a list of consignments specifying which types and quantities of biomass were used throughout the year to generate renewable energy under the Guarantee of Origin (GVO) and what part of it meets all the legal sustainability requirements and therefore is eligible for subsidy.

The types of biomass should be classified in two different, interrelated ways. In order to demonstrate the sustainability of the biomass used, the energy producer must specify the biomass **category** (Section 2.2), and under which **NTA 8003 codes** the biomass used falls (Section 2.3) for the purpose of the GVO certificate (for the SDE+ subsidy).

### 2.2 Demonstrating sustainability: classify biomass into five categories

To be able to verify whether the sustainability requirements have been met, it must be clear which biomass category applies and that all the sustainability requirements for that particular category have been met based on an approved certificate or verification statement. The Decree on the Conformity Assessment of Solid Biomass for Energy Applications specifies five categories of biomass to which different sustainability requirements apply:

- Category 1: Woody biomass from Forest Management Units;
- Category 2: Woody biomass from small Forest Management Units (FMU <500 hectares);
- Category 3: Residues from nature and landscape management;
- Category 4: Agricultural residues;
- Category 5: Biogenic residues and waste flows.

The biomass category should be determined at the beginning of the biomass chain, because the category determines which sustainability requirements the biomass should meet and should be verified there by a CAB. For each of the five biomass categories, Chapters 3 and 4 define how the category should be determined and where in the biomass chain.

The information on the category into which the biomass falls, based on either verification or certification, should then be transferred through the chain together with the other sustainability information required (see also Section 2.4).

The CAB that draws up the conformity year statement verifies for all biomass consignments whether there is proof that the category has been determined correctly, whether the biomass meets the sustainability requirements relevant to that particular category and what documents are available to prove this (certificates or verification).

### Origin and nature of the biomass

When classifying biomass into Categories 1-5, first of all, it is essential to identify the **origin** of the biomass. If the biomass originates directly from the forest, it always falls into Category 1 or 2. No distinction is made between residues and non-residues for biomass sourced directly from the forest.

If biomass does not originate from the forest, it may fall into Category 3, 4 or 5. The determining factors are, firstly, where the residue was produced and, secondly, whether it is a **residue**. This is shown in the diagram in Figure 2.1.

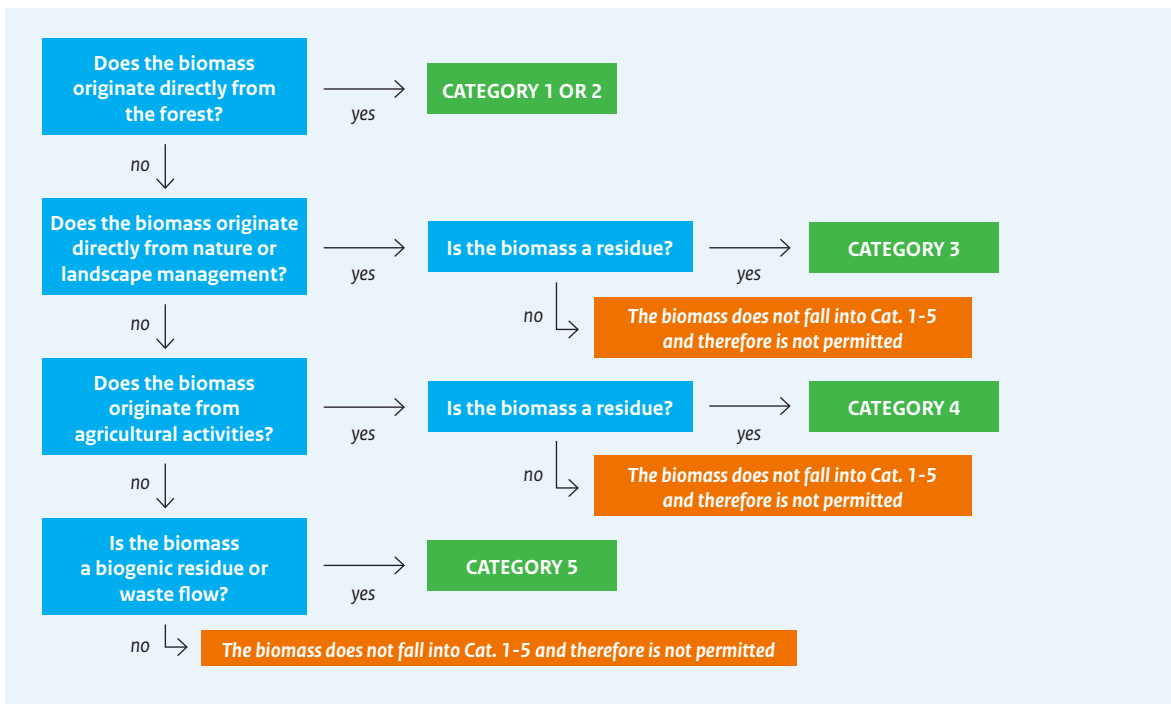


Figure 2.1 Decision tree for classifying biomass into Categories 1-5.

Chapter 3 discusses the question of what constitutes a forest and how to make a distinction between material in Category 1 or 2. Chapter 4 discusses the question of what constitutes residue and defines the scope of the residues that fall into Categories 3-5.

## 2.3 Subsidy requirement: classification of biomass in accordance with NTA 8003 codes

In addition to complying with the sustainability requirements, the biomass used is also required to fall under the NTA 8003 codes permitted under the Allocation Regulations for SDE categories (*Aanwijzingsregeling SDE categorieën*). Please note that compliance with the 2017 NTA 8003 codes is not a sustainability requirement, but a subsidy requirement.

A subsidy application can only be submitted for industrial steam boilers in which:

- wood pellets produced from fresh wood (NTA 8003 codes 110-138) are burned;
- residues from fresh woody biomass (NTA 8003 codes 110-138) released from biorefining (NTA 8003 code 595) are burned for no more than 25% of the number of kWh eligible for subsidy in a calendar year;



- c. wood pellets produced from untreated A-grade wood (NTA 8003 codes 160-169) are burned for no more than 15/85th of the total number of kWh eligible for subsidy in a calendar year, produced from biomass as referred to under a and b.

In order to ensure that high-grade biomass is used first, (cascading) part b was added in 2019. This will help boost innovations in the bio-based economy.

The scope of part c of the above residual flows has been widened for coal-fired power stations with co-firing and co-gasification installations so that pilot programmes can also be carried out with residues for the replacement of coal. The following applies to coal-fired power stations:

- c. Biomass (NTA 8003), except for the main numbers 100, 101, 150 and B-grade wood, must be co-fired for no more than 15/85th of the total number of kWh eligible for subsidy in a calendar year, produced from biomass as referred to under a and b.

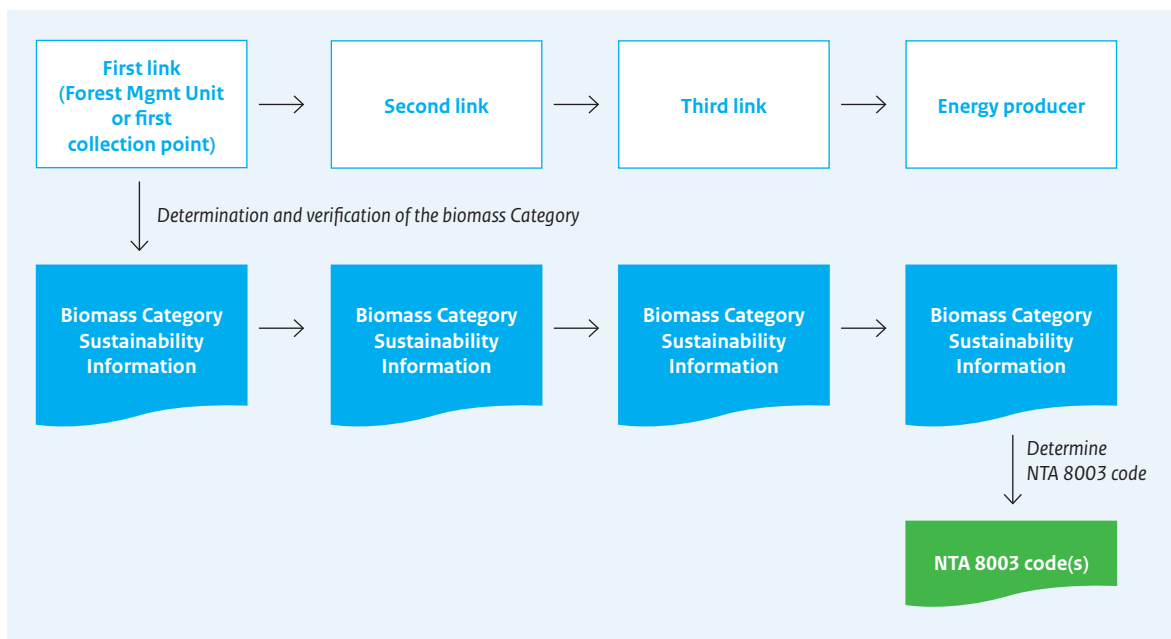
The energy producer must register the NTA 8003 codes of the biomass used and submit an annual overview to CertiQ for the purpose of the assurance statement and obtaining GVOs. Based on the list from CertiQ, the energy supplier can then draw up the conformity year statement accompanied by the list of sustainable consignments for the Netherlands Enterprise Agency. The list of consignments must be completed on the basis of NTA 8003 codes. However, the accountant who draws up the assurance statement for CertiQ under the Guarantee of Origin Regulations (GVO regulation) will verify whether the NTA 8003 codes have been used correctly.

There are basically two ways in which the energy producer can determine the NTA 8003 codes of the biomass used:

1. Information on the NTA 8003 codes has been passed on through the biomass chain together with the biomass batch, in addition to the required information on the biomass category (see 2.2).
2. The energy producer individually derives the NTA 8003 code from the information on the biomass category passed on through the chain.

In practice (especially in international biomass chains), NTA 8003 codes are usually not passed on through the chain and the second option will need to be used. This option restricts the energy producer in terms of the level of detail in which the NTA 8003 codes can be specified. The energy producer can in that case only derive the codes from the biomass category and any additional information that is passed on through the chain. For example, if an energy producer uses pellets made from Category 1 biomass (forest wood), the producer will usually not know whether this is soft or hard deciduous wood (NTA 122 or 125), or coniferous wood (NTA code 13). The energy producer will need to fall back on NTA code 110 “fresh wood” or NTA code 111 “fresh wood mixture”.

Figure 2.2 shows the relationship between the information on the five biomass categories that must be submitted under the Decree on the Conformity Assessment of Solid Biomass for Energy Applications, and the information on the NTA 8003 codes that must be submitted under the Allocation Regulations for SDE categories.



**Figure 2.2** Diagram showing link in the biomass chain where the biomass category should be determined and verified, and where NTA 8003 codes should be derived.

### 2008 version of NTA 8003 and 2017 version of NTA 8003: – Permitted biomass and reporting on the biomass used

In the Allocation Regulations for SDE categories (Aanwijzingsregeling SDE categorieën), the permitted biomass flows had previously been defined on the basis of the codes in the 2008 version of the NTA 8003. A new version of the NTA 8003 was published in 2017, in which a number of changes were made to the codes.

In concrete terms, this means that the permitted codes for “fresh wood” 110-132 were replaced with the more differentiated codes 110-138 in the new 2017 version. The codes in the new 2017 NTA 8003 should be used for the 2019 report and the reports for the following years.

#### Use of NTA 8003 codes

Appendix A to the 2017 NTA 8003 contains “Explanatory notes to the use of NTA 8003”. It also states how the details of the code should be used:

*“All main and subgroups have their own number. In principle, all these numbers can be used, even for a main subgroup. In some cases, using a number of a main or subgroup would be the best fit. For example, if a further subdivision in that area is not relevant or not possible because more specific information is not available.*

*Example: if the only information known is that a batch of wood consists of deciduous wood, but not whether it is soft or hard deciduous wood, this batch will be classified into group 120 and not in 121, 122, 124 or 125.”*

Chapters 3 and 4 discuss what this means for the NTA 8003 codes related to the five categories of biomass.

## 2.4 Passing on the biomass category and other sustainability information through the chain

As explained in Section 2.2, the biomass category must be determined by the first link in the biomass chain. This is either the Forest Management Unit or the first collection point. The company (first link in the chain) determines the biomass category. This is audited by the CAB of the certification scheme against which the first link in the chain is certified for 12.4, or in the case of verification, by the verifying CAB auditor.

After that, the information on the biomass category should be passed on through the chain together with the other sustainability information required. This follows from requirement 12.4 in the Regulation on the conformity assessment of solid biomass for energy applications: *“each link in the Chain of Custody registers the quantities and the sustainability information required for all incoming and outgoing consignments under these regulations.”*

The CAB verifies whether the records for the category and other sustainability information are correct in each link in the Chain of Custody.

There are various ways of ensuring that the information on the biomass category is passed on by the supply chain in the correct manner:

1. If a certification scheme approved for requirement 12.4 is used, the information on the biomass category will be transferred along the supply chain based on the Chain of Custody System for that particular scheme. This is verified by the CAB for that particular certification scheme.
2. If a certification scheme that has not been approved for requirement 12.4 is used for the supply chain, the information on the biomass category can be transferred along the supply chain:
  - a. using another certification scheme that has been approved for requirement 12.4. This will be checked by the CAB for that scheme; or
  - b. using verification. In that case, the verifier will check whether requirement 12.4 has been met.

## 2.5 Processing mixed flows of biomass

In some cases, biomass flows **from various categories** may have been upgraded to a fuel, in which the separate, original biomass flows are no longer physically recognisable. An example is forest wood (Category 1 or 2) combined with a residue from a woodworking business that is upgraded to a pellet.

In other cases, biomass flows in the same category may have been upgraded to a fuel, but a **different method has been used to demonstrate the sustainability of the biomass flows**. An example is when forest wood that has been certified against an approved certification scheme is processed together with other forest wood, the sustainable management of which has been demonstrated through verification. Lastly, there may be cases in which the same method has been used to demonstrate the sustainability of the same category of biomass flows (the same certificate or verification), but where the **sustainability characteristics** of the biomass flows differ.

An example is two physically identical biomass flows with a different greenhouse gas value (due to transport distances or a different energy consumption level during processing).

The following information must be available to demonstrate the sustainability of the fuel from mixed biomass flows:

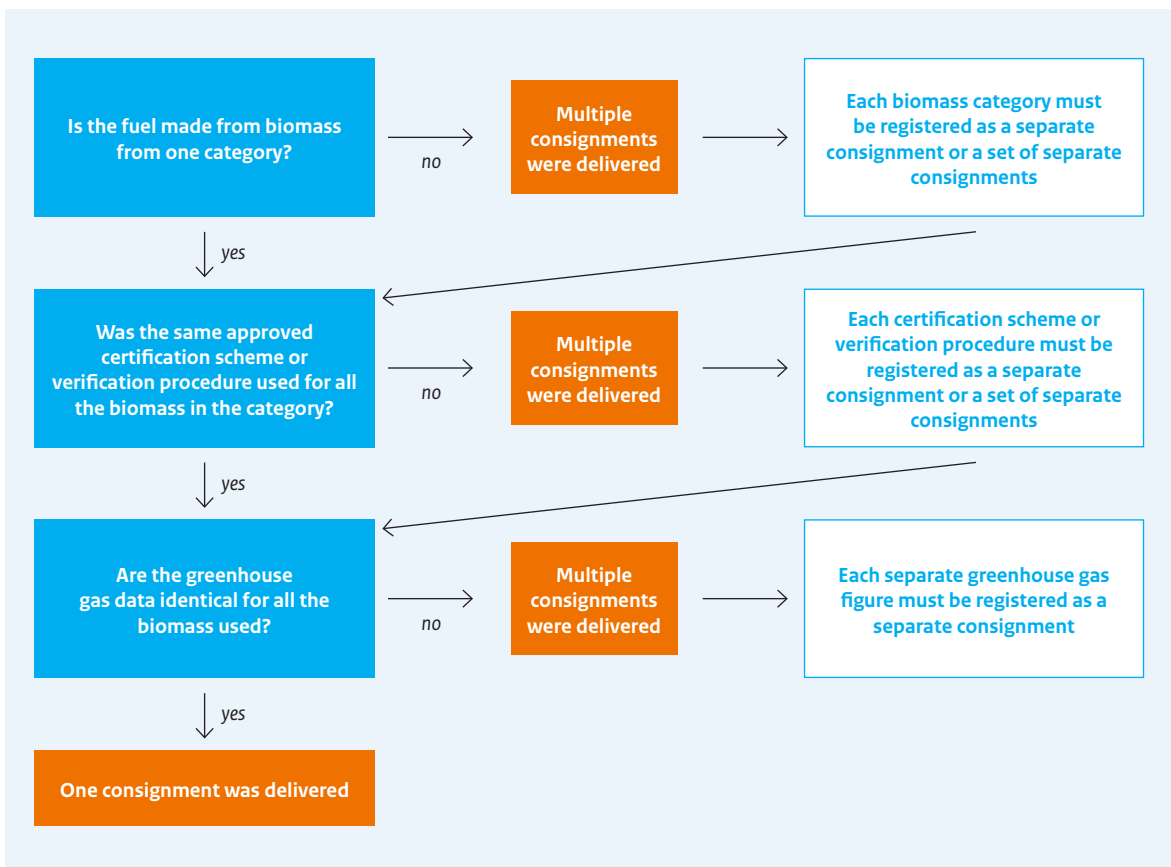
1. the category and the quantity of the various types of biomass processed in the fuel. See Chapters 3 and 4 for more information on the link in the chain where the category should be determined;
2. an approved certificate or a verification statement for each of the biomass flows used that demonstrates that all the sustainability requirements applicable to the relevant category have been met;
3. greenhouse gas emission data for each biomass flow used.

It is important therefore that the sustainability information for the various biomass flows is available and has been collected by the correct link in the chain. In the event of different biomass flows, different

certification/verification methods or different sustainability characteristics of the biomass, these flows should be recorded as separate consignments.

The Verification Protocol defines a consignment as follows: “a quantity of biomass used for energy production that has uniform physical and sustainability characteristics throughout the entire consignment. A consignment may consist of several truckloads or shiploads, as long as the physical and sustainability characteristics of the biomass are uniform.”

Figure 2.3 shows how to determine whether a batch of fuel consists of one or more consignments.



**Figure 2.3** Decision tree to determine whether a batch of biomass fuel consists of one or more consignments.

# 3. Categories 1 and 2: Woody biomass from Forest Management Units

## 3.1 Definition of “Forest Management unit” and “forest”

The Verification Protocol defines a Forest Management Unit as *“one or more forest stands containing natural forest, planted forest or other types of forest that are managed as a single unit. FMUs produce Category 1 or 2 biomass.”*

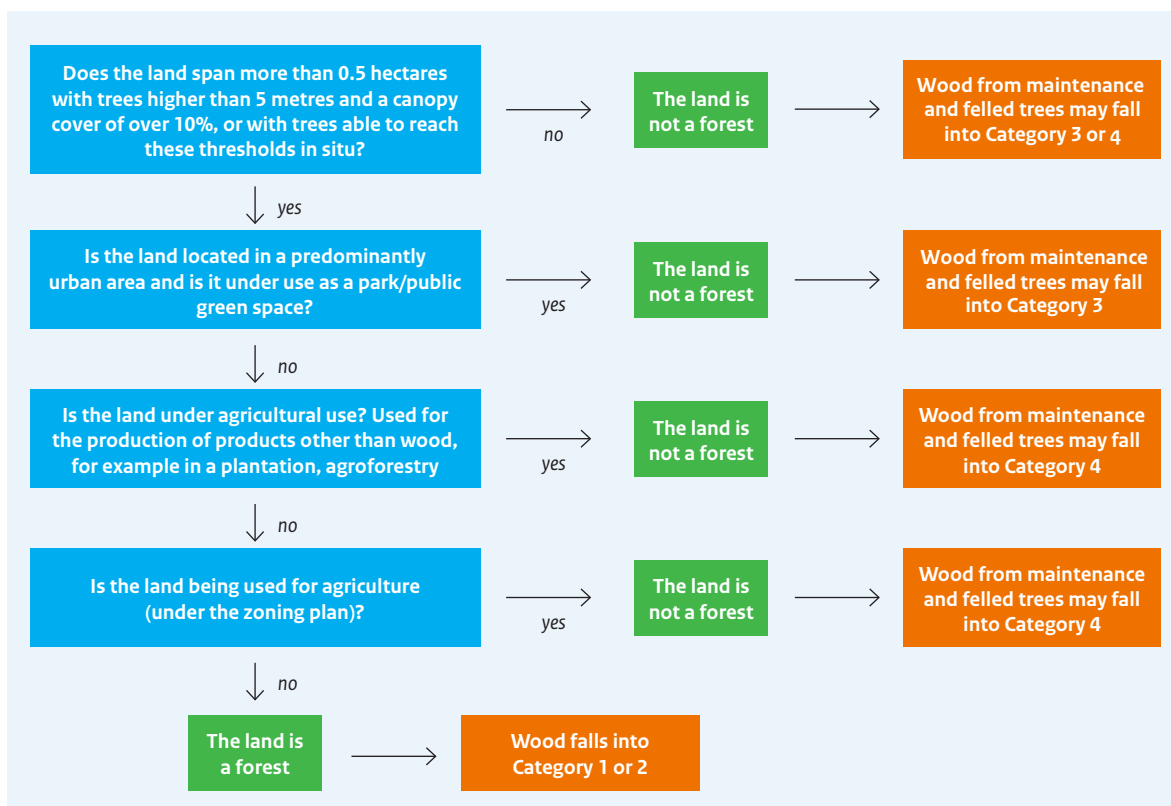
“Forest” is defined as: *“Land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of over 10%, or with trees able to reach these thresholds in situ, not including land that is predominately under urban or agricultural use.”*

The Verification Protocol does not provide any further definition of “predominately under urban or agricultural use”.

For a clearer delineation, the terms as defined by the FAO are used here. The FAO makes a distinction between “forest” and “other land with tree cover”. The determining factor for the distinction is use of the land under the zoning plan, in other words:

- When > 0.5 ha of land has tree cover and is located in an urban area and the use of the land under the zoning plan is a park, public green space or similar, the land is “other land with tree cover” (so not a “forest”). The wood released from maintenance work on the land falls into Category 3.
- When > 0.5 ha of land has tree cover and is used for agricultural production other than wood products, the land is “other land with tree cover” (so not a “forest”). This could be a free tree orchard or a palm oil plantation, for example. The wood released from maintenance of the land or when trees are felled falls into Category 4, provided that it has been determined that it is indeed a residue.
- When > 0.5 ha of land has tree cover and is not used for agricultural production other than wood products, but use of the land is agricultural under the zoning plan, the land is “other land with tree cover” (so not a “forest”). This applies to agricultural land with temporary tree cover, for example. The wood released from maintenance or thinning falls into Category 4, provided that it has been determined that it is a residue. The wood released from complete felling may partly be a Category 4 residue. This should be assessed by the auditor.

The above is shown in the diagram in Figure 3.1.



**Figure 3.1** Decision tree to determine when land is classified as forest.

Based on the above, the following wood flows do not originate directly from land classified as forest, and therefore do not fall into biomass Categories 1 and/or 2:

Wood type	Category
Wood released from maintenance of nature reserves not being forest.	Category 3
Wood released from maintenance of landscape elements (not being forest).	Category 3
Wood released from maintenance of green spaces in urban areas and alongside roads and waterways	Category 3
Wood released from maintenance of land in rural areas, not being nature reserves and not being forest (defence grounds, etc.)	Category 3
Wood released from pruning or felling trees in orchards or plantations (fruit trees, palm oil plantations, etc.)	Category 4
Wood cultivated in urban areas and alongside roads and motorways for biomass used for energy production	None
Wood cultivated in landscape elements or on land in rural areas for biomass used for energy production	None
Waste wood, being A-grade wood	Category 5
Woody material from the processing of vegetable, fruit and garden waste (VFG), green waste and similar flows	Category 5
Wood released as a residue from wood processing, such as bark and sawdust	Category 5

## 3.2 Making a distinction between Category 1 and Category 2 biomass

A consignment of woody biomass from the forest may only be classified as Category 2 if it has been demonstrated that the whole consignment originates from small Forest Management Units (FMU <500 hectares). This can be carried out in two ways:

1. The Forest Management Unit assesses compliance with the sustainability requirements (based on certification or verification). The auditor ascertains that the Forest Management Unit is < 500 ha. The biomass from the relevant Forest Management Unit is then registered as a separate Category 2 consignment by all links in the biomass chain. The Chain of Custody begins with the Forest Management Unit itself. The first link is the organisation that trades the biomass first (the owner of the forest or the economic operator that operates the concession of harvest on behalf of the owner of the forest).
2. Compliance with the sustainability requirements is assessed based on information about an area larger than one Forest Management Unit. This is the risk-based approach. In this case, the Chain of Custody begins with the first economic operator that receives the biomass directly from the Forest Management Units from that area (such as the pellet mill). The auditor ascertains in the first link in the chain that the size of all the Forest Management Units in the defined sourcing area is < 500 ha. The biomass is then registered as a separate Category 2 consignment.

If the size of the Forest Management Units has not been ascertained or if a consignment of woody biomass originates from both larger and smaller Forest Management Units, the whole batch of biomass is classified as Category 1.

### Relationship with NTA 8003 codes

Category 1 and 2 biomass always concerns fresh wood from Forest Management Units. In many cases, the energy producer will not have any information on the nature of the wood, such as whether it is deciduous or coniferous wood, or a mixture, and whether it is wood from branches and treetops or from thinning. In this case, the energy producer can use NTA 8003 code 110 “fresh wood” or NTA 8003 code 111 “fresh wood mixture” for Category 1 and 2 biomass. If the energy producer has more specific information available on the nature of the wood, the producer can use other NTA 8003 codes in the 120-138 series, if desired.

# 4. Categories 3-5: Biomass residues and biotic waste flows

## 4.1 The terms “residual flows” or “residues”, and “waste”

The Verification Protocol defines residual flows or residues as follows:

*“Biomass generated in the production of other (main) products or biomass that falls free in a process other than a production process. Distinction is made between primary, secondary and tertiary residual flows.*

- *The primary residual flow concerns parts of plants that are left behind on the field or in the forest after the harvest.*
- *The secondary residual flow concerns all forms of biomass that remain behind in a production process, such as wood waste and sawdust in a sawmill.*
- *Tertiary residual flows concern biomass products that are usually interpreted as waste materials, such as organic waste from fruits, vegetables and gardens, waste wood and other post-consumer material.”*

Residues can therefore be released during a production process, or during a process other than a production process. In both cases, the production of the residue was not the purpose of the process.

A production process focuses on the production of one or more products, and the residue is released as a “loss”. Production processes can be either agricultural or industrial in nature. An example of a residue released from an agricultural process is straw. An example of a residue from an industrial process is sawdust in a sawmill, or bagasse during the extraction of sugar from sugar cane.

A process other than a production process is the maintenance of green spaces, or collecting and sorting waste flows.

In many cases, biomass residues will have the legal status of waste. Under certain conditions, a biomass residue can also be classified as a by-product. Having the status of waste is not a condition for the classification of a residue in Categories 3-5, nor is by-product status a restriction. The primary consideration is that it is established that the biomass residue has not been deliberately produced. Sections 4.2-4.4 specify this in further detail for biomass Categories 3-5.



## Waste Regulations and potential restrictions on the use of biomass as fuel

If a biomass residue has the status of waste in a legal sense, it is subject to the Waste Regulations. This means that the waste hierarchy also applies to the processing of this biomass flow. The waste hierarchy indicates the order of preference in which waste must, in principle, be processed as far as possible.

The National Waste Management Plan 3 (LAP3) specifies minimum standards for a large number of waste materials in sector plans. The minimum standard indicates the minimum grade for processing and specifically implements the waste hierarchy for the waste materials in that sector plan. The minimum standard is a reference point for granting waste management permits; the competent authority primarily assesses waste management permit applications or initiatives against the minimum standard for the corresponding sector plan.

Under the Allocation Regulations for SDE categories, a number of biomass categories have the status of waste, and the minimum standard adopted in the LAP3 for the processing of these flows stipulates “recycling”. Useful application based on “primary use as fuel” in a bioenergy plant is only permitted if recycling is not technically possible, is disproportionately costly or it has been demonstrated in a life-cycle analysis (LCA) that the primary use as fuel is preferred from an environmental perspective (see Section 4.25 of LAP3 for the exact wording of the exceptions).

An analysis of the restrictions imposed on the use of certain biomass flows under the Waste Regulations falls outside the scope of this guidance document. This falls under the responsibility of the public authorities who are the competent authority for granting permits to bioenergy power plants and carry out the associated supervision.

## 4.2 Category 3: Residues from nature and landscape management

The Verification Protocol defines residues from nature and landscape management as follows: *“residues from management of urban green, landscape or nature other than forests\*, aiming at the preservation, recovery or strengthening of specific natural, recreational or landscape functions. This also includes biomass residual products from the regular maintenance of public green areas and parks.”*

\*This does not include landscape or nature that is defined as forest. In the Verification Protocol and the Regulation on the Conformity Assessment of Solid Biomass for Energy Applications “Forest” is defined as: *“Land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of over 10%, or with trees able to reach these thresholds in situ, not including land that is predominately under urban or agricultural use.”*

This is biomass that is released as a result of management and maintenance measures that have another purpose than the production of biomass. Examples of other purposes are keeping the landscape open (grubbing up and pruning landscape elements) and ensuring road safety (pruning trees, mowing roadsides).

This category excludes the biomass flows deliberately cultivated as raw material for livestock feed or as biofuel, such as willow plantations or cultivated elephant grass.

The following biomass flows in any case fall into Category 3:

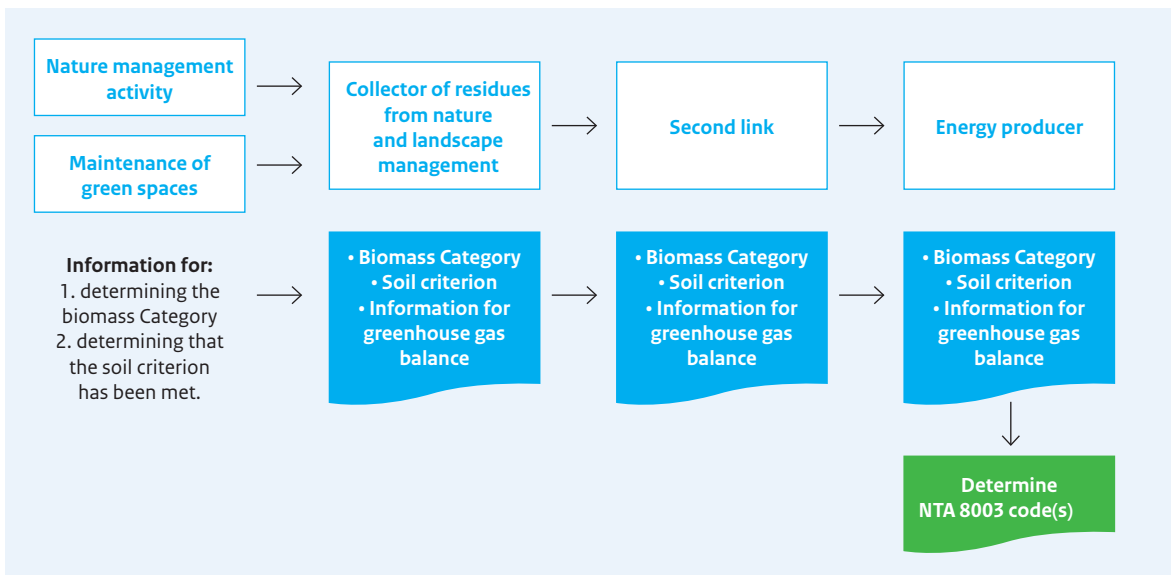
- woody and non-woody biomass released during the maintenance of nature reserves, not being forest;
- woody and non-woody biomass released during the maintenance of landscape elements (not being forest);
- woody and non-woody biomass released during the maintenance of green spaces in urban areas and alongside roads and waterways;
- woody and non-woody biomass released during the maintenance of land in rural areas, not being nature reserves and not being forest (defence grounds, etc.).

An example of non-woody biomass is roadside grass (NTA 8003 code: 213), natural grass and ditch mowings. Elephant grass/miscanthus, reeds, etc. can also be classified in this group if it is released during the maintenance of land and green spaces, and provided that it is not deliberately produced.

The Chain of Custody for Category 3 residues begins with the first collection point. This is the economic operator that is the first to collect the biomass directly from the source. The economic operator must keep records so that the origin of the biomass collected can be traced back, and to show that it can fall into Category 3. On top of that, the first collection point must register the following information:

1. relevant input data for the greenhouse gas calculation (transport, any processing);
2. data showing that the sources (points of origin), from which the first collection point receives biomass, comply with Principle 1 and criterion 2.1 (preserving and/or reinforcing soil quality). For example, this may be because the source was certified according to an approved criterion 2.1 certification scheme. However, the collection point can also demonstrate and verify in another manner that this source complies with criterion 2.1.

This is shown in the diagram in Figure 4.1.



**Figure 4.1.** Category 3 residual flows: sustainability information in the chain

#### Relationship with NTA 8003 codes

One specific code is available for nature and landscape management residues, which is NTA 8003 code 113, for woody residues from nature and landscape management.

If it is clear that the residues are non-woody residues from nature and landscape management, NTA 8003 code 210 for grass can be used.

In practice, whether the residues are woody or non-woody biomass residues from nature and landscape management will be derived from the specifications of the fuel delivered.

## 4.3 Category 4: Agricultural residues

Category 4 “Agricultural residues” are residues released on the farm. These biomass flows are released during agricultural production, but have not been deliberately produced. Agricultural products such as grains, maize and oilseeds therefore do not fall into Category 4.

Residues released during the processing of agricultural products outside the farm, for example in the food processing industry, do not fall into Category 4. These residual flows may fall into Category 5 (see Section 4.4).

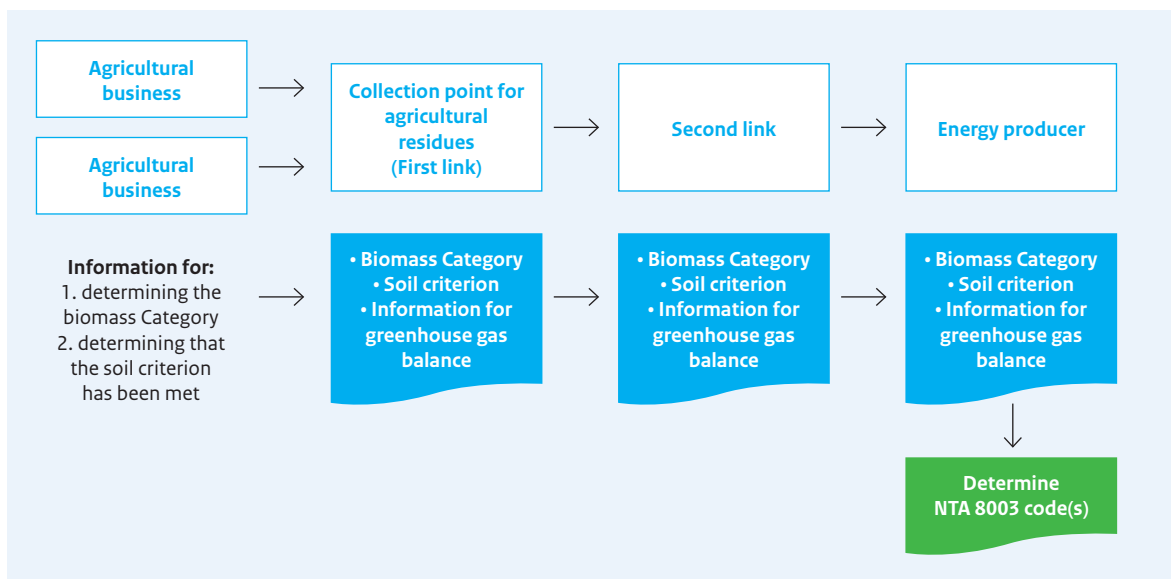
The following biomass residues in any case fall into Category 4:

- residues directly from arable farming, such as straw;
- horticultural waste;
- flower bulb husks;
- mushroom compost;
- livestock manure;
- wood released from pruning or grubbing trees in orchards or plantations (fruit trees, palm oil plantations, etc. This includes NTA 8003 code 253).

The Chain of Custody for Category 4 residues begins with the first collection point. This is the economic operator that is the first to collect the biomass directly from the source. The economic operator must keep records so that the origin of the biomass collected can be traced back, and to show that it may fall into Category 4. On top of that, the first collection point must register the following information:

1. relevant input data for the greenhouse gas calculation (transport, any processing);
2. data showing that the sources (points of origin), from which the first collection point receives biomass, comply with Principle 1 and criterion 2.1 (preserving or reinforcing soil quality). For example, this may be because the source was certified according to an approved criterion 2.1 certification scheme. However, the collection point can also demonstrate and verify in another manner that this source complies with criterion 2.1.

This is shown in the diagram in Figure 4.2.



**Figure 4.2.** Category 4 residual flows: sustainability information in the chain

#### Relationship with NTA 8003 codes

The biomass flows that fall into Category 4 may have different NTA 8003 codes. This relates to the following main groups:

- NTA 8003 code 200: biomass from agriculture and horticulture (including in any case: straw (220), horticultural waste (252), fruit cultivation (253), flower bulb husks (254), arable farming residues (255), mushroom compost 256);
- NTA 8003 code 300: manure;
- NTA 8003 code 110: fresh wood.

The biomass producer will generally know whether the biomass in Category 4 falls under NTA 8003 code NTA 200, 300 or 110. The producer can therefore report this NTA 8003 code. If the energy producer has more

specific information available on the nature of the biomass used, it can use other NTA 8003 codes in the 200 or 300 series (such as NTA 8003 code 220 for straw).

## 4.3 Category 5: Biogenic residues and waste flows

A wide variety of biotic waste flows fall into Category 5. They can be summarised as follows:

- waste wood;
- sludges;
- organic waste from households and companies, including waste paper;
- industrial organic residues.

These residual flows are specified in further detail below:

### Wood flows that fall into Category 5

The following wood flows fall into Category 5:

- waste wood, being A or B-grade wood;
- wood from the processing of vegetable, fruit and garden waste (VFG), green waste and similar flows;
- wood released as a residue from wood processing, such as bark and sawdust.

### Sludges

Sludges are understood to mean sludges originating from the wastewater treatment processes, to the extent they consist of organic material (biomass). The sludges may originate from communal or industrial wastewater treatment processes.

### Household or commercial organic waste (600)

This is separated vegetable, fruit and garden waste (VFG) from households, similar in nature and composition to organic commercial waste. Organic commercial waste includes swill (cooked kitchen and food waste) and food that has passed its best-before/use-by date. Auction waste also falls into this category. Waste paper/cardboard and textile may also fall into this category.

Lastly, the wet organic fraction (WOF) falls into this category. WOF is the organic fraction arising from the mechanical post-separation of household and commercial waste.

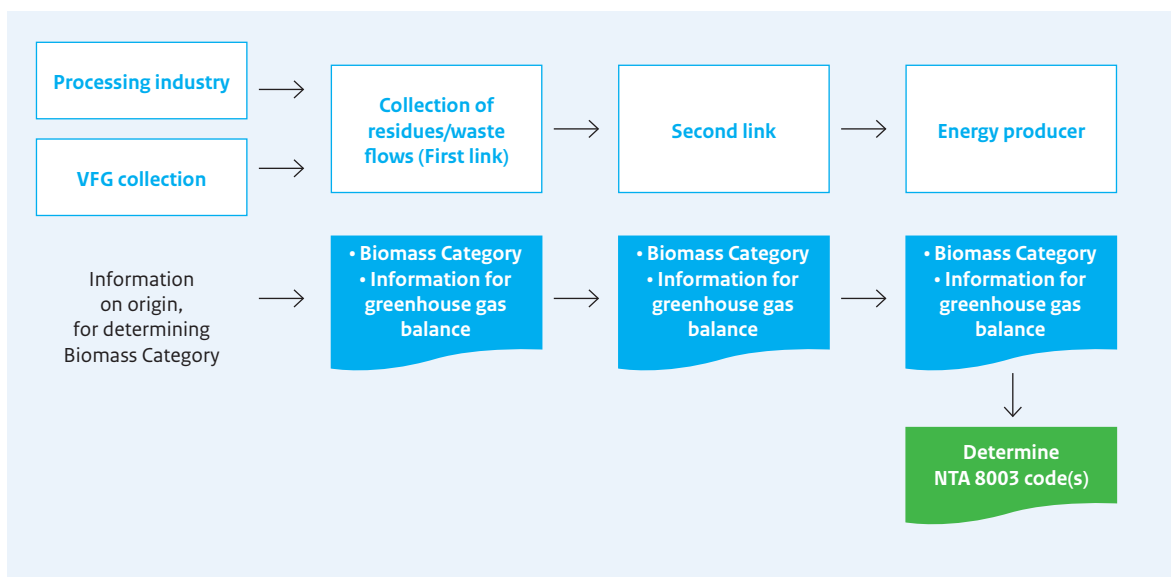
### Industrial biomass residues

Organic residues are released during the processing of agricultural products in the food and beverages industry, and related industries. The residues may be composed of plant material or animal material (animal meal). Organic residues can also be produced by other industries. An example is bleaching clay originating from oleochemical processes. All these residual flows fall into Category 5, provided that they have not been deliberately produced.

Pure vegetable oils and fats (NTA 8003 code 550) and animal oils and fats (NTA 8003 code 560) from the food and beverages industry do not fall under the permitted residual flows.

The Chain of Custody for Category 5 residues begins with the first collection point. This is the economic operator that collects the biomass from the company or the process where it originated. This economic operator must keep administrative records that demonstrate that the sources (points of origin) from which the first collection point receives Category 5 biomass are the economic operators who generate the Category 5 biomass.

This is shown in the diagram in Figure 4.3.



**Figure 4.3.** Category 5 residual flows: sustainability information in the chain

#### Relationship with NTA 8003 codes

A wide range of NTA 8003 codes for the biomass flows fall into Category 5. The energy producer must classify the biomass flows used under Category 5 into at least the following six main groups:

- NTA 8003 code 190: for wood from the processing of vegetable, fruit and garden waste (VFG), green waste and similar flows;
- NTA 8003 code 116: for wood released as a residue during wood processing;
- NTA 8003 code 400: sludges;
- NTA 8003 code 500: industrial residues;
- NTA 8003 code 600: household and commercial organic waste;
- NTA 8003 code 700: for waste paper/cardboard and textile.

If the energy producer has more information available on the nature of the biomass, the producer can use more specific NTA 8003 codes, if desired.

The biomass flows under Category 5 generally have the legal status of waste. This means that, if the energy producer receives these flows, it must register and report these flows to the National Waste Control Centre (LMA) in accordance with the applicable European Waste Codes (EWC codes). The above main groups of NTA 8003 codes can be derived from the EWC codes.

If an energy producer receives a fuel pellet composed of one or more types of Category 5 waste, the energy producer must retrieve the formula of the fuel from the fuel producer, meaning the types of waste it contains and the quantities used. The above main groups of NTA 8003 codes can be derived on the basis of this information.

(NB: the energy producer also needs information on the composition of the fuel for other matters, such as operations management, the Environmental Permit and associated supervision).

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National Waste Management Plan 3 (LAP3) [www.lap3.nl](http://www.lap3.nl)



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