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Research on Whole Trees Logged for Biomass Production



Spokes people for biomass plants, energy companies & politicians are very eager to state that only branches, topwood and residues are used to create woody biomass for energy plants to hush the public into submission while they cut down your forests and burn them for energy. We have added many official documents and research papers to this website to prove this is false. The lower part of this page contains some of the many videos depicting how they cut down whole trees and shred them for biomass.

EU Biomass Legal Case Main Arguments [2019-08-00-eu-biomass-legal-case-main-arguments-english.pdf](#)

This legal document contains the main arguments in the EU Biomass Legal Case where the applicants seek annulment of the inclusion of "forest biomass" – essentially trees, including, stems, stumps, branches and bark – as a renewable fuel within the Renewable Energy Directive (recast) 2018.

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2019-06 \\ Multiple NGO's

[2019-06-14-southernenvironment-burning-trees-for-power-the-truth-about-woody-biomass-energy-and-wildlife-english.pdf](#)
2019-06 \\ Southern Environment

"...The Directive itself anticipates that forest harvesting for energy will continue to expand. Recital 103 states: "Harvesting for energy purposes has increased and is expected to continue to grow, resulting in higher imports of raw materials from third countries as well as an increase of the production of those materials within the Union..."

"...There are several incentives in the Directive that make this increase more likely. For example, Annex IX (paragraphs o-q) includes forest biomass in the category of feedstocks for production of biogas for transport and advanced biofuels count double toward Member States' renewable energy targets..."

"...To the extent that increasing demand for biomass drives additional forest harvesting for fuel and increases use of whole trees cut specifically for fuel, this will increase the carbon impact of bioenergy..."

"...biomass includes products derived from trees, which includes primary products such as stemwood, and secondary products such as waste and residues: "forest biomass' means biomass produced from forestry..."

"...Direct Concerns:..."

- The definitions of biomass to include forest biomass, and forest biomass to include stems and stumps (i.e. whole trees)..."

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SDE Verification Protocol for Burning Woody Biomass

[2019-02-26-rvo-sde-verificatieprotocol-duurzaamheid-vaste-biomassa-voor-energieoepassingen-dutch.pdf](#)

This report was commissioned by the Dutch Government and discusses what kind of woody biomass is eligible for subsidy. It clearly states that 3 out of 4 categories contain whole trees besides the branches, topwood and primary residues.

"...The verification protocol relates to the following categories of solid biomass that are eligible for subsidy

Category 1: Woody biomass from forest management units

This includes branches, topwood, trees and primary residues directly from the forest.

Category 2: Woody biomass from forest management units smaller than 500 hectares

[2019-06-03-tweede-kamer-hoorzitting-bomen-kappen-voor-klimaat-en-natuur-roofbouw-of-noodzakelijk-kwaad-dutch.pdf](#)

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[2017-03-28-inverde-biomassa-de-verwerking-tot-houtsnippers-en-de-invloed-op-de-kwaliteit-dutch.pdf](#)

2017-03 \ \ Inverde

[2017-03-28-inverde-kwantitatieve-bepaling-van-houtige-biomassa-op-het-terrein-dutch.pdf](#)

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[2017-03-28-inverde-rekenbladen-voor-houtige-biomassa-dutch.pdf](#)

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[2014-12-00-bvor-houtchips-als-brandstof-dutch.pdf](#)

2014-12 \ \ BVOR/RVO

[2014-03-03-bvor-warmte-uit-hout-dutch.pdf](#)

2014-03 \ \ BVOR

[2009-07-11-bosplus-van-wilg-tot-warmte-potenties-van-kortomloophout-dutch.pdf](#)

2009-07 \ \ BosPlus

This includes branches, top timber, trees and primary residues directly from forests smaller than 500 ha.

*Category 3: Residual flows from nature and landscape management
These are biomass Bucharest products (branches, topwood, trees) that are released during urban greenery management..."*

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The Production of Quality Woodchips for Biomass Burning [2017-03-28-inverde-biomassa-de-verwerking-tot-houtsnippers-en-de-invloed-op-de-kwaliteit-dutch.pdf](#)

This report was commissioned by the Belgian Government to ensure high quality woodchips for biomass burning to produce electricity. It specifically mentions prunes as being undesirable and describes how to process trees for biomass production.

"...Logs, branches and top timber are best kept in the pile or at a central storage location for a longer period of time lie outside the pile so that they can pre-dry. To get a better drying process you can place some worthless trunks at the bottom of the pile... The wood trunks must be in the same direction..."

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Quantitative Provisioning of Woody Biomass [2017-03-28-inverde-kwantitatieve-bepaling-van-houtige-biomassa-op-het-terrein-dutch.pdf](#)

This report was commissioned by the Belgian Government to be able to calculate the quantitative Provisioning of Woody Biomass Logging.

"...The following calculation sheets were developed for this project:

- woody biomass on trunk*
- unchipped woody biomass, for heaps of branches and trunks*
- chipped woody biomass, for heaps of wood chips*
- crownwood..."*

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ATTENTION!

We are analyzing reports and creating & posting new summaries every day. This is time consuming work but we will try to deliver multiple summaries per day. We are currently processing reports from 2019 and will work our way back into the [hundreds of official research reports commissioned the last decade.](#)

Calculation Sheets for Woody Biomass [2017-03-28-inverde-rekenbladen-voor-houtige-biomassa-dutch.pdf](#)

This report was commissioned by the Belgian Government to be able to calculate the quantitative Provisioning of Woody Biomass Logging.

"..This calculation sheet includes a volume determination of woody biomass on trunk,..The spreadsheet provides a cost-benefit analysis per m³ of harvested woody biomass. From harvesting, rolling out and chipping to charging and transporting to a biomass plant, for woody biomass on trunk.."

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Quality Assurance of Wood as a Fuel [2014-12-00-bvor-houtchips-als-brandstof-dutch.pdf](#)

This report was commissioned by the Dutch government and intends to prevent mechanical problems, problems with energy efficiency and / or increased emissions due to low quality woodchips. It clearly states whole trees are used to produce good quality woodchips as biomass for biomass burning plants. Prunings are linked to contaminants in wood fuels and are therefor considered as undesirable for biomass.

"..Fresh wood [for biomass production] can consist of whole trees, felling waste, branch and top wood, stumps, round wood, etc. This category also includes wood that is specifically grown for biomass and other applications (for example on a willow plantation).."

"..When talking about contaminants in wood fuels, a distinction is often made macro contaminants and micro contaminants. Macro contaminants are non-wood parts that are chipped...For example, it may concern others organic material released and chipped with prunings (needles, leaves, grassy material)...Macro contaminants mainly have a negative effect on the functioning of the installation, while micro contaminants cause unwanted emissions.."

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Heat from Burning Wood

[2014-03-03-bvor-warmte-uit-hout-dutch.pdf](#)

This report was commissioned by multiple woodlogging companies to determine the most effective method for producing woodchips for burning biomass.

"...Fresh wood [for biomass production] can consist of whole trees, felling waste, branch and top wood, stumps, round wood, etc. This category also includes wood that is specifically grown for biomass and other applications (for example on a willow plantation).."

"...When talking about contaminants in wood fuels, a distinction is often made macro contaminants and micro contaminants. Macro contaminants are non-wood parts that are chipped...For example, it may concern others organic material released and chipped with prunings (needles, leaves, grassy material)...Macro contaminants mainly have a negative effect on the functioning of the installation, while micro contaminants cause unwanted emissions..."

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From Willow to Heat

[2009-07-11-bosplus-van-wilg-tot-warmte-potenties-van-korte-omloophout-dutch.pdf](#)

This report was commissioned by the Belgian Government and discusses the usage of short-lived wood for biomass production to be burned to create electricity.

"...The Forest Decree provides the legal definition of short-lived wood. According to this decree it is about the "cultivation of fast-growing woody crops in which the aboveground biomass periodically grows is harvested in its entirety up to 8 years after planting or after the previous harvest. "Important is that harvesting takes place within 8 years, otherwise one enters a different legal context rightly so: that of the forest..."

"...Short-turn timber is harvested in a cycle of 2 to 4 years. At that time they reach in some fallen heights of 8 to 10 m..."

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Threat Map Are Forests the New Coal

[2019-07-08-epn-report-threat-map-are-forests-the-new-coal-english.pdf](#)

This report was commissioned by the EPN as a wake-up call to those governments that are subsidising coal to biomass conversions; will persuade investors that financing biomass power is not sustainable; and will persuade energy analysts, retailers and consumers to distinguish forest biomass, as a high-carbon renewable energy technology, from lower-emitting technologies like wind and solar.

"..Enormous volumes are taken direct from the forest as whole logs, limbs, tops or stumps. All this, even the whole trees, is defined as residues based on the lesser merchantable value per unit weight or volume when compared to the few high quality saw-logs generated by the same logging operation.."

"..The so called 'residue' stream can often comprise the majority of the product arising from a logging operation. The income generated by high-intensity harvests based on quantity criteria may make more logging operations financially viable, as compared to those operations constrained to take high quality wood alone. In places where the community is struggling to retain natural forests the advent of such a lucrative, incentives-based 'residue' trade can drive further logging incursions and promote clearcutting as a logging method.."

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Sustainable Biomass for the Production of Hydrogen

[2019-06-23-wageningen-university-research-duurzame-biomassa-voor-de-productie-van-waterstof-dutch.pdf](#)

This report discusses the burning of woody biomass to generate electricity to be used for the production of hydrogen.

"..In a managed ecosystem, like most forests, harvesting usually takes place, whereby part of the carbon stored in the forest is removed during harvest in the form of trunks, firewood and / or branch and top timber.."

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Global Markets for Biomass Energy are Devastating Forests

[2019-06-17-nrdc-dogwoodalliance-southern-environmental-law-center-global-markets-for-biomass-energy-are-devastating-us-forests-english.pdf](#)

This report commissioned by NRDC, Dogwood Alliance, Southern Environmental Law Center exposes the damaging logging practices used to source the biomass industry, including the clearcutting of iconic wetland forests.

"...Global demand for wood pellets is devastating forest ecosystems in the Southeast United States... Despite the claims of the industry, the independent reporting shows a disturbing pattern: wood pellets burned by Drax and others come from wood that is harvested from native hardwood forests in an area designated as a global biodiversity hotspot. They also spotlight the vast quantities of whole trees and other large-diameter wood— biomass feedstocks known to be high-carbon..."

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[Burning Trees for Power the Truth about Woody Biomass 2019-06-14-southernenvironment-burning-trees-for-power-the-truth-about-woody-biomass-energy-and-wildlife-english.pdf](#)

This report commissioned by Southern Environment states the many and extreme dangers for biodiversity caused by the logging and burning of woody biomass.

"...In 2016, wood pellet exports from the U.S. reached 4.9 million metric tons, tripling the 1.6 million tons exported in 2012. Nearly 85 percent of these exports —approximately 4.1 million metric tons—went to the U.K.6 Increasingly high forest harvest levels (7 million green tons in 2016) are needed to support these wood pellet exports to the U.K. According to the U.S. Forest Service, "it is unlikely that biomass requirements for energy would be met through harvest residues and urban wood waste alone. Healthy, whole trees are required to meet this level of wood pellet production..."

"...Supplying the U.K.'s demand for wood pellets in 2016 alone required harvesting approximately 303 square kilometers of forests in the southeastern U.S. At this level of demand, in a little over one year the U.K. will have harvested an area the size of the New Forest in England (376 sq. km,10 or more than 50,000 Wembley stadiums) for pellet production..."

"...The largest losses of natural forests in the Southeast are forecasted in Florida, South Carolina, and North Carolina (58, 35, and 30 percent loss, respectively). In particular, the region's bottomland hardwood forests, already

"reduced to a mere fraction of their original extent," are "now being logged to supply the wood pellet export industry..."

"...Increased demand for woody biomass will continue to exacerbate the pressures facing these forests by incentivizing the harvest of whole trees..."

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Dutch Government Hearing Logging Trees for the Climate [2019-06-03-tweede-kamer-hoorzitting-bomen-kappen-voor-klimaat-en-natuur-roofbouw-of-noodzakelijk-kwaad-dutch.pdf](#)

This report commissioned by main parties like the Dutch State Forest Management and its former Director, Professors at the University and others concerned with the massive amount of trees being logged for biomass production.

"...Input former Director Dutch State Forest Management

Firstly, SBB (Dutch state forest management) has fallen back on the logging method for harvesting wood in combination with tillage, as if trees are an arable crop. Euphemistically, this is also referred to as rejuvenation. The clearing as a method for forest exploitation is an outdated phenomenon: deliberately abolished long ago because of the major disadvantages for the forest ecosystem. It is a national policy that kills around two thousand football pitches per year. Bare cutting leads to a sharp decrease in soil fertility, in biodiversity and in perception value. Moreover, it is climatic because it leads to a substantial increase in CO₂ emissions and to the conversion of climate-robust mixed forests into monocultures of mainly pine trees that are vulnerable to climate change..."

"...Input Prof. Dr. Martijn Katan, biochemicus, Vrije University

Biomass for power plants is often imported from the US in the form of wood pellets. These are largely made from tree trunks: 64% from logs of pine and 12% from hardwood. Wood waste and sawdust hardly play a role, there is too little of it to meet demand. The growing demand for biomass leads to logging of large areas of forest, including primeval forest (hardwood). Will forest owners completely replace trees with new trees? That depends on the competitive destinations for land, expectations about timber prices and subsidies, willingness to invest in long-term, etc. Economic science cannot predict what those forest owners will do. What we do know is that even with 100% replanting it takes 20-100 years for the cuttings to be so large that they have absorbed the CO₂ emitted by our power stations. The extra CO₂ from

biomass therefore remains in the air until 2050 or 2100 and worsens the climate crisis..."

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