Green Gold Label - A nontransparent biomass certification scheme that allows whole trees to pass as “residues and waste”

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COMITÉ Schone Lucht

biofuelwatch

Executive Summary

Green Gold Label (GGL) is a biomass certification scheme that was set up by the Dutch energy company Essent in 2002, before any other certification schemes for wood biomass energy existed. A supposedly independent Green Gold Foundation was then set up as owners of the scheme, and Essent was acquired by the German energy corporation RWE in 2009.

Today, GGL certifies biomass burned in Dutch power stations according to sustainability criteria linked to Dutch renewable energy subsidies, and it also certifies Palm Kernel Shells and, more recently, wood burned under renewable energy schemes in Japan. The European Commission is considering whether to approve GGL for biomass certification under the Renewable Energy Directive (RED3).

This report explores the history of the GGL and the pivotal role that RWE and different biomass certification schemes which RWE and other energy companies developed played in developing a global market in wood pellets. It then gives an overview of the timeline for Dutch wood pellet burning and subsidies. This overview starts with the Energy Agreement signed by industry, trade unions and several environmental NGOs in 2013 which permitted cofiring of up to annually 3.5 million tonnes of pellets in coal power stations, moves onto the agreement on biomass sustainability criteria in 2015, and then summarises the growing concerns raised about the impacts of burning large quantities of wood in power plants, from a parliamentary motion against new biomass subsidies for co-firing in 2016 to a government decision in 2022 that no new subsidies for biomass electricity, district heating and heating of greenhouses will be granted. It sums up the specific concerns raised especially by environmental NGOs about wood pellets sourced from an Estonian pellet producer shown to be violating three different Dutch sustainability criteria and, in 2025, about Malaysian wood pellet imports for RWE's power plants.

The report then looks in detail at GGL certification which, in the Netherlands, is entirely for the burning of woody wastes and residues from wood processing, excluding logging residues taken directly from the forest. Such wastes and residues are classed as "Category 5" biomass in the Netherlands and do not have to comply with any sustainability criteria and only with greenhouse gas criteria starting with the sawmill residues arriving in a pellet mill (i.e. not looking at any emissions associated with logging forests). Based on GGL certification, almost all wood biomass burned in the Netherlands under the current subsidies have been classed as Category 5, i.e.

they have not been assessed against the sustainability criteria. In 2023 and 2024, this was true for 100% of the wood burned.

Finally, the report looks at how the GGL certification scheme works. GGL audits are not published but treated as business secrets that cannot be disclosed without the customer's, i.e. the certified power station's, biomass trader's or pellet producer's consent. No site visits are required for certification of "wastes and residues", i.e. no auditor has to see what actually goes into a pellet plant. In fact, pellet plants and traders can be certified by GGL as using "wastes and residues" even if they also use large amounts of roundwood. The share of the pellets made from roundwood simply doesn't fall within the scope of the certificate.

RWE for example, sources from pellet plants which use both roundwood from the forest or from tree plantations and sawmill residues, yet some of those plants and all of RWE's biomass energy are GGL-certified for 'wastes and residues' only. All that is required is for RWE to complete "transaction statements" saying that the pellets they receive are entirely from sawmill residues, and send those to the GGL certification body If forest wood was included in the pellets then neither the certification body, nor the GGL board nor any Dutch authority, let alone the general public could ever find out.

The report concludes with demands to EU, Dutch and Japanese policymakers, which call for GGL certification not to be approved by the European Commission and for approval in the Netherlands and in Japan to be withdrawn. In the Netherlands, it calls for the immediate suspension of all biomass subsidies based on GGL certificates because those wood pellets have never been adequately assessed against the Dutch sustainability criteria.

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1. Introduction and aim of the publication

Green Gold Label (GGL) is the oldest certification scheme for solid biomass, having been founded in 2002. It provides bespoke certification, currently for the Netherlands and Japan.

In the Netherlands, GGL has been certifying biomass from “residues and wastes” that is burned in power stations and is eligible for renewable energy subsidies under the Dutch SDE++ scheme since 2019. Since 2020, GGL has also been certifying palm kernel shells (PKS), a residue from palm oil production, for the Japanese power sector. In March 2024, GGL announced that the Japanese authorities had granted them permission to certify “11 types of agricultural residues next to PKS and woody biomass under the Japanese Feed-in-Tariffs and Feed-in Premium (FIT/FIP) schemes.

An application for approval by the European Commission to certify biomass under the Renewable Energy Directive is pending.

2. Green Gold Label and the history of biomass sustainability certification

Green Gold Label was founded by the Dutch energy company Essent in 2002, in collaboration with a single certifying company: Skal International, which later changed its name to Control Union Certifications (CUC). In fact, the scheme was initially called Essent Green Gold Label. Ownership was then passed on to the Green Gold Label Foundation (Stichting Green Gold Label), incorporated as a non-profit organisation under Dutch law. As the world’s first sustainability certification scheme for woody biomass, GGL and their founders, Essent/RWE, played a pivotal role in the development of a global wood pellet market.

During the early 2000s, Essent’s and other Dutch power stations got subsidies for co-firing large quantities of biomass, including wood, but above all, palm oil. However, political pressures to end the scandal of renewable energy

subsidies for burning a commodity widely linked to rainforest and peatland destruction was growing. In 2007, the Dutch government announced an end to those subsidies. It left open the possibility of restarting palm oil subsidies subject to sustainability certification in future, but this did not happen. Instead energy companies, including Essent/RWE, started burning more and more imported wood pellets. At that time, the global wood pellet market was still in its infancy and there was no standard for pellet quality (vital when burning larger quantities in coal power plants), nor was there any other certification scheme apart from GGL. Companies had learned from the palm oil debacle that, sooner or later, sustainability certification would surely be required.

By 2011 RWE had become the world's biggest player in the emerging wood pellet business: they opened what was then the world's largest wood pellet plant in Waycross Georgia in the USA (later sold to Enviva), and they embarked on the world's first major coal-to-biomass conversion at the Tilbury B plant in Essex, UK, while co-firing significant quantities of pellets in their Dutch coal power stations. That same year, RWE expected to burn an unprecedented 3 million tonnes of wood pellets, half of them in Tilbury B.[1] The fact that, by 2010, RWE had 95% of its pellets certified "sustainable" by the GGL helped the company legitimise its coal-to-biomass conversion in England and obtain permission for this at a time when sustainability certification was entirely voluntary for companies. Tilbury B did in fact burn 1.4 million tonnes of pellets in one year, but it suffered a major fire in 2012 and was closed for good the following year.

When Biofuelwatch first wrote about Green Gold Label, in 2012, Control Union Certification was still the sole certifying body and GGL's Executive Board consisted of two RWE representatives only.

Other energy companies, too, were establishing their own certification systems at the time, as we discussed in a Biofuelwatch report in 2012. Drax, who have been operating the world's biggest biomass plant since 2012, relied on various forest management certification schemes for "sustainability certification". In 2010, GDF Suez (now called Engie) founded the Initiative Wood Pellet Buyers (IWPB), joined by five other European energy companies, including RWE. IWPB played a pivotal role in developing the quality standards vital for the creation of a global pellet market. Indeed, IWPB's stated first goal was "to enable the trading of industrial wood pellets among the partnering companies". The development of

[1] See footnote 57 here: https://www.biofuelwatch.org.uk/wp-content/uploads/Biomass-myth-report-unillustrated1.pdf . Document no longer available.

sustainability criteria was the second goal,l and, for that purpose, the energy companies partnered with wood pellet producers to found the Sustainable Biomass Partnership (SBP). in 2013, while IWPB was dissolved. The “P” in “SBP” later became “Program” rather than “Partnership”, because no environmental or social NGOs willing to join the SBP could be found. It is another highly controversial scheme as discussed in a 2025 joint NGO report.

Meantime, an originally German certification scheme, EN-Plus, became the world’s foremost certification scheme for wood pellet quality standards - as opposed to sustainability.

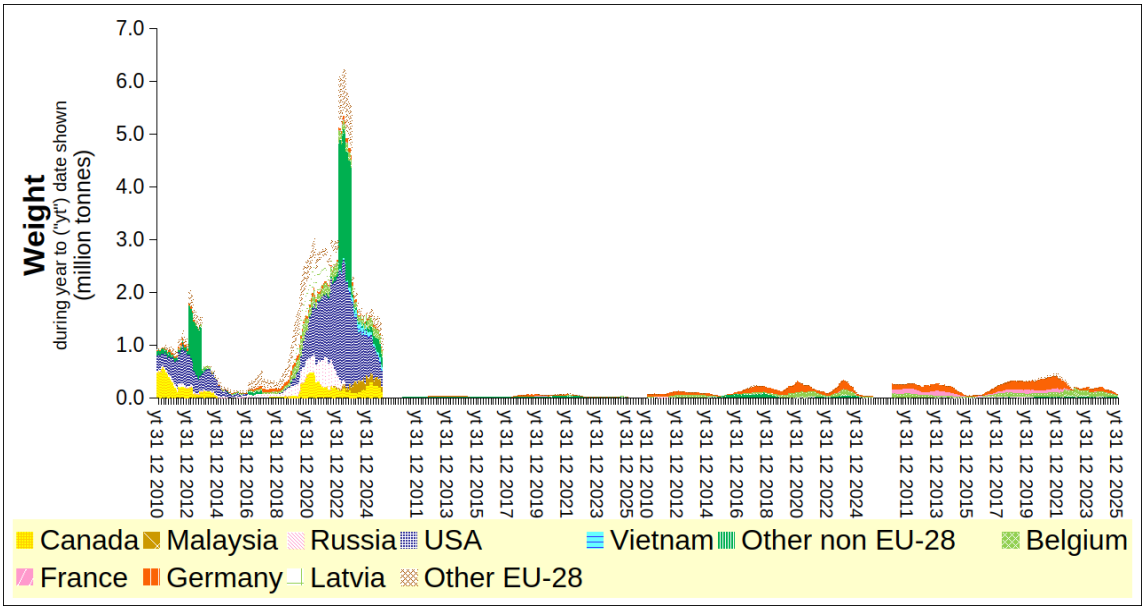
Nonetheless, despite helping to set up SBP and draw its standards, RWE maintained its support for, and involvement in, Green Gold Label. The likely reasons for this will become obvious below.

3. Dutch biomass subsidies and the role of sustainability certification

In 2013, the Dutch Energy Agreement was signed by industry, trade unions and several environmental NGOs. It included a coal phaseout by 2030, major scaling up of wind and solar power, but also the co-firing of up to annually 3.5 million tonnes of wood pellets with coal, subject to mandatory sustainability standards set out in a Covenant on sustainable biomass. The agreement was approved by energy companies and the same NGOs in 2015. On paper, Dutch sustainability criteria remain stronger than those that apply EU-wide. During the negotiations about the Energy Agreement and the subsequent implementation of sustainability standards, the amount of wood pellets burned in the Netherlands dropped from just over 1 million tonnes in 2012 to a low of 144,000 tonnes in 2017. In 2018,

RWE was awarded an 8-years’ subsidies contract for burning wood pellets in the Amer Power Station, followed by another subsidies contract for co-firing wood pellets in the Eemshaven power plant the following year. Uniper and Onyx were awarded similar subsidies contracts for co-firing pellets in their Dutch coal plants, and wood pellet imports increased steeply, reaching a high of around 3 million tonnes in 2022.

An adopted motion in the House of Representatives (8 December 2016) requests the government to immediately, or as soon as possible, discontinue the provision of **new** SDE+ subsidies for the co-firing of biomass in coal-fired power plants.



Source: https://globaltimber.org.uk/pellets.htm, based on Eurostat data

It is evident from the data that the steep rise of Dutch wood pellet imports and burning was directly linked to the introduction of sustainability criteria that had, initially, been endorsed by several environmental NGOs as well as industry and policymakers.

3.1 What happened next: Growing concerns about the sourcing of wood pellets burned in the Netherlands

In 2019, the southeastern US conservation NGO Dogwood Alliance raised concerns, reported in Dutch media, about RWE burning wood pellets produced by the world's largest pellet producer, Enviva. Enviva has long been shown to be routinely sourcing wood from the clearcutting of highly biodiverse coastal hardwood forests in a global biodiversity hotspot in the Southeastern USA

In 2021, Greenpeace Nederland published a report by Profundo that looked at Dutch wood pellet imports on Baltic States forests and warned that although a large share of wood pellets were classified as sawmill residues and waste: "the rapidly increasing volume of subsidised pellets imported by the Netherlands and other European countries may nonetheless contribute to increasing pressure on remaining forests".

As a result of NGO campaigning, there had already been media coverage about the impacts of Dutch biomass subsidies on forests in the Baltic States.

That same year, SOMO published another report "to ascertain whether wood pellets used for co-firing in Dutch power plants are produced in compliance with the Dutch criteria for sustainable biomass". The report authors specifically focussed on wood pellets produced in Estonia, by the Estonian wood pellet company Graanul Invest, a major wood pellet supplier to the Netherlands at the time. They identified cases of Graanul Invest pellets being linked to logging in high conservation value forest, in watersheds, and in peatland forests, all of which is prohibited by the Dutch sustainability criteria applicable to the granting of Dutch subsidies

In response, the NGOs that had previously joined the Covenant on sustainable biomass, jointly resigned from it and called for an end to subsidies for co-firing wood in coal plants.

In June 2023, a parliamentary Roundtable Biomass was held, focussing on the evidence from Estonia at which both NGOs and industry advocates gave evidence.

And in July 2025, Comité Schone Lucht and Biofuelwatch jointly submitted a complaint to the Dutch Emissions Authority (NEa) in which they argued that Malaysian wood pellets burned by RWE appeared to be linked to rainforest destruction and peat drainage in breach of Dutch sustainability criteria.

The Dutch government had already decided in 2022 that no further subsidies for burning biomass for electricity, district heating or greenhouse heating should be granted.This has been largely due to the continued strong pressure from the environmental organization Clean Air Committee[2] against the Dutch government's provision of subsidies for biomass combustion for energy.
However, existing subsidies have been left untouched despite those serious questions about their compliance with Dutch sustainability criteria.

And this is where Green Gold Label comes in…

[2] https://comiteschonelucht.nl

3.2 Green Gold Label certifies nearly all wood burned in the Netherlands as sawmill residues and waste wood

Unbeknown to most NGOs - including ours, until recently, hardly any of the pellets burned in Dutch power plants have ever been assessed against the detailed forest management criteria set out in the Dutch sustainability standards. This is because they have been certified, mostly by Green Gold Label, as constituting Category 5 biomass, which is defined as "biogenic wastes and residues". The following types of wood fall within that category:

"• waste wood, being A or B-grade wood [i.e. post-consumption waste wood not treated with chemicals or treated with the least toxic chemicals];
• 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"

Wood that is taken directly from the forest cannot come under Category 5 but comes under "Category 1" or "Category 2", depending on the size of the forest management unit. Such wood has to meet the Dutch sustainability criteria.

Category 5 biomass is not required to meet sustainability criteria. Thus, if residues are sourced from a sawmill linked to the destruction of old growth or otherwise highly biodiverse forests, they still meet the Dutch as well as EU sustainability criteria. Only the greenhouse gas emissions linked to processing the sawmill residues into pellets and transporting them to a biomass plant are accounted for, not the harvesting of trees

GGL has been certifying Category 5 biomass in the Netherlands since 2019; it does not certify any other type of biomass under the Dutch sustainability criteria.

CE Delft has been reporting on the share of Category 5 biomass in wood pellets burned in Dutch coal plants: 92% for the total in 2020, 92.6% in 2021, 95.6% in 2022, and 100% in both 2023 and 2024. Both of RWE's Dutch power plants have been certified for Category 5 biomass by GGL.

This means that very little, and recently none, of the pellets burned in Dutch power stations have been tested against the Dutch or EU sustainability criteria at all, and that only limited greenhouse gas accounting has been applied.

3.3 How does GGL certification work?

As is the case with all sustainability certification schemes, a company requiring a certificate chooses and pays a certification body, which will carry out an initial audit, with regular follow-up audits to ascertain whether relevant criteria and standards are being met.

GGL currently has ten Certification Bodies, two of which, Control Union Certification (CUC) and Trans Certification & Inspection Sdn. Bhd., have been accredited by the Dutch Accreditation Council. RWE is certified by CUC.

The auditors, who are employed by the Certification Body, have to comply with the Green Gold Label Regulation. That internal document shows that ***auditors are not required to carry out any site visits at all in order to certify Category 5 biomass***. Instead, they rely heavily on Transaction Statements which certified companies need to send to the Certifying Body. Here is a copy of a sample Transaction Statement for a pellet producer certified in accordance with Category 5 criteria:

General information	
Name of product	Wood pellets
Previous TCs	*{provide unique codes of previous TC issued}*
Mill of origin (Voluntary-based field)	*{provide name of the biomass producer}*
Product supplied from	*{name of company selling product}*
Product supplied to	*{name of company purchasing product}*
Date on consignment	19-10-2018
Date On board on Bill of or transport documents	19-10-2018
Shipment / file number	P103339
Name of ship (if applicable)	Vessel X
Buyer's Reference Number	YVR/IMM001
Gross mass in MT (load port)	10455.32 mt
Net mass in MT (discharge port)	
Country of origin of biomass	Canada ①

Source: documentation.greengoldlabel.com/wp-content/uploads/2025/11/4b.-Transaction-statement-guidance-v1-1-.pdf

In addition, information about greenhouse gas emissions needs to be supplied.

It thus appears that GGL certification of Category 5 biomass can be based exclusively on paperwork supplied by the certified company or the company applying for a certificate.

Whereas some certification schemes, such as the Sustainable Biomass

Program, publish detailed audit reports for all their certificates, GGL does not. To the contrary, the GGL Regulation states: "***Except for information that the Participant makes publicly available, or when agreed between the certification body and the Participant (e.g. for the purpose of responding to complaints), all other information is considered proprietary information and shall be regarded as confidential.***"

All decisions regarding GGL's rules and standards are made by the Board, which currently consists of three members. One board member represents RWE, another worked for RWE in the past. There are no NGO representatives on the Board.
In addition, there is an Advisory Council with five members, some of whom work for industry companies. Member André Faaij is based as scientist at the Copernicus Institute. André Faaiji has played an important role in legitimising large-scale burning first of palm oil and then of wood pellets, as revealed in a 2020 investigation by Federatie Tegen Biomassacentrales (Federation Against Biomass Power Plants). The strategic advisors are not board members.
Clearly, ***GGL, founded by Essent/RWE, remains very a scheme designed by and for industry that helps energy companies access biomass subsidies.***

3.4 How credible is the GGL assessment that RWE only burns pellets made from Category 5 residues?

RWE has, for several years, refused to disclose the sourcing of its pellets, including in responses to activists at its AGMs in 2024 and 2025. During 2024, the amount of biomass energy generated by RWE according to their Annual Report roughly matched Eurostat data of total pellet imports to the Netherlands. Therefore, the RWE's sourcing countries are known, which, for 2024, were in order of quantities: USA, Canada, Malaysia, Belgium, Vietnam, Germany, Latvia, Norway, Estonia, Brazil.

Let us have a look at pellets known to have been sourced by RWE and at whether those are made from industry residues or from wood taken directly from the forest.

3.4.1 Pellets imported from Malaysia

In the case of Malaysia, as discussed in the joint complaint to NEa, only two pellet producers had certificates of compliance with Dutch sustainability criteria at the time: Rainbow Pellet (Pahang Province) and Samling Group subsidiary TreeOne MegaPellet (Sarawak). Both are certified by the Sustainable Biomass Program (SBP): Rainbow Pellet is SBP-certified for sourcing primary forest and tree plantation wood as well as sawmill residues. TreeOne MegaPellet is SBP-certified for burning primary forest and tree plantation wood only.

Rainbow Pellet's website shows a photo with large amounts of roundwood outside the plant. Google Map Satellite view confirms the feedstock information in the SBP Supply Base Information that primary forest (or rather plantation) wood is used, even if not exclusively:

GGL has certified the same pellet plant - for Category 5 wood only.

3.4.2 Pellets imported from the Baltic States

Another pellet producer known to have been supplying pellets to RWE is the Estonian pellet producer ***Graanul Invest.*** All of Graanul's pellet plants in Estonia and Latvia are certified by the SBP as using both primary forest wood and secondary wood, i,.e. Sawmill residues. This is confirmed by Google Maps satellite images, e.g. this one from Launkalne:

Photographs taken by NGOs also show large piles of roundwood stored at Graanul Invest's pellet plants.

Wood stored at Graanul Invest's Osula pellet plant in Estonia, Photo: Liina Steinberg, Save Estonia's Forests

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3.4.3 Pellets imported from the USA

In the past, RWE sourced wood pellets from the world's largest pellet producer, Enviva, who regularly source whole trees from the clearcutting of highly biodiverse coastal hardwood forests in the Southeastern USA. However, lack of transparency by RWE and GGL makes it impossible to verify that Enviva is still selling pellets to the Netherlands.

Aerial photograph of Fram Fuel's Hazelhurst Pellet plant in Georgia, Photo: Dogwood Alliance

However, another pellet producer in the region, Fram Renewable Limited Ltd. (known as Fram Fuels), has been certified as using Category 5 wood by GGL. Fram Fuels operates four pellet plants, three in Georgia and one in Texas, with a total capacity of 972,000 pellets a year. All but one of the plants have been certified by the Sustainable Biomass Program as using a mix of primary forest (including tree plantation) wood and sawmill residues. One of them, called Telfair Forest Products, only uses sawmill residues, however its capacity of 132,000 tonnes a year is far less than Dutch pellet imports from the region (758,000 tonnes in 2024). Yet this company, too, has been certified by GGL for the use of biogenic waste and residues (Category 5 in the Netherlands).

3.5 Might GGL certification for "wastes and residues" still allow pellet producers or power companies to use primary forest wood outside the scope of the certificate?

Biofuelwatch put this question to the GGL Board in an email dated 1st December 2025, using the example of a Portuguese pellet producer, Pinewells SA, who have been well-documented to be using large quantities of roundwood

from pine trees. Drax in the UK has been sourcing wood pellets from Portugal (known to come from Pinewells) and declared those as coming from 'forest residues', i.e. from wood taken directly from the forest. On 9th December, the following reply was received from the GGL Programme Manager:

> *"Our GGL Certificate holder list shows the scope of the certification of GGL Participants. This scope certificate limits the activities that GGL Participants may perform under our certification scheme. The specific GGL Participant that you refer to below cannot act as a Biomass producer of woody or agricultural biomass under his current GGL scope certificate."*

This suggests that ***any pellet producer certified for making pellets from "biogenic wastes and residues" (Category 5) by GGL, could also make pellets from primary forest wood, which would, however, not come under the scope of the GGL certificate***. Thus, in theory, RWE could have been sourcing wood from Rainbow Pellet or Graanul Invest, who use a mix of primary forest (or tree plantation) wood and sawmill residues, but those pellet producers could be taking great care to only use sawmill residues when specifically meeting RWE's orders. To do so, they would need to pause their ordinary production from mixed feedstock to produce tailored sawmill-only batches to ship to the Netherlands. While technically possible, it raises an obvious question: Who would monitor and verify that this is consistently happening, and how? As we have seen above, the only mechanism is by way of RWE completing transaction statements based on the information they have been given by each pellet producer and sending those to Control Union Certification. GGL certification of "biogenic wastes and residues", or Category 5 wood in the Netherlands, thus relies entirely on the word of the company holding that certificate.

If, whether due to RWE's or a pellet producer's errors or to potential misinformation, pellets made from wood sourced from forests and tree plantations end up being burned in RWE's Dutch power plants, nobody else would ever be able to know. Not Control Union Certification, not the GGL Board, not the Dutch Emissions Authority.

4. Conclusion and Demands

On paper, the Netherlands have some of the strictest sustainability criteria for subsidised biomass energy, stricter than those that apply across the rest of the EU. Yet NGOs, media reporters and MPs have long raised concerns about the impacts of pellets burned in Dutch coal power stations, mostly by RWE, on forests and on the climate. Evidence published by SOMO that RWE pellet supplier Graanul Invest had violated three of the Dutch sustainability criteria in Estonia contributed to the government decision in 2022 to phase out biomass subsidies for electricity, district heating and greenhouse heating.

What has been missed during most of the Dutch debates on biomass energy, however, is that hardly any of the wood pellets burned in Dutch power plants, and none burned in 2023 and 2024, have ever been assessed as meeting the sustainability criteria related to forest management and to carbon and land use change. This is because they have been assessed under the voluntary certification scheme Green Gold Label as being made from wastes and residues, namely sawmill residues, and not from wood taken directly from the forest(called Category 5 biomass in the Netherlands).

GGL, founded as Essent/RWE's own certification scheme, now certifies wood and PKS burned in the Netherlands and now also wood burned in Japan. It has also been put forward for European Commission approval as a certification scheme under the EU Renewable Energy Directive, though a decision is still pending. GGL remains an industry scheme with no civil society participation. It maintains strict secrecy about its audits to protect the interests of power companies, traders and pellet producers. It does not require auditors to carry out any site visits at all before or after awarding a certificate for "waste and residues". What is more, a company may be awarded a certificate for "waste and residues" even if some of the wood used, traded or burned does come directly from the forest - that fraction of the wood is then excluded from the scope of the GGL certificate. This means that a company such as RWE may be buying GGL-certified wood pellets supposedly made from sawmill residues from pellet plants that routinely mix sawmill residues with roundwood taken from the forest. All that is required by GGL in such, very common, cases is that a company such as RWE completes paperwork saying the pellets were made from sawmill residues and sends it to the certification body. Which raises an obvious question: Why have certification with auditing and verification requirements at all when wood sourcing comes down to nothing other than the word of those who profit from selling and/or burning wood pellets?

Demands

1. The European Commission must not approve GGL as a certification scheme that can be used to certify biomass sustainability under the Renewable Energy Directive (RED3).

2. Dutch authorities must withdraw the approval of the GGL for certifying biomass under the Dutch biomass sustainability verification protocol. Ongoing subsidies for biomass energy based on evidence from GGL must also be suspended because the biomass will not have been adequately assessed for compliance with the Dutch sustainability criteria. Furthermore, there must be an investigation into pellets burned so far by GGL-certified power stations. If there is no credible external evidence that those pellets fully complied with Dutch sustainability criteria then power plant operators should be required to pay back the subsidies received.

3. The Japanese government must withdraw approval of GGL for the purpose of biomass sustainability certification under the Feed-in-Tariff and Feed-in-Premium schemes.
4. Subsidies for burning forest biomass must be ended and forest biomass energy must be excluded from green finance criteria.