



EU Biomass Legal Case

Save Forests, Save the Climate

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The Case

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SUMMARY OF THE EU BIOMASS CASE

The Case

On Monday, March 4th, 2019 a precedent-setting case will be filed with the European General Court in Luxembourg challenging the treatment of forest biomass as a renewable fuel in the European Union's 2018 revised Renewable Energy Directive (known as RED II). The case argues that RED II will accelerate widespread forest devastation and significantly increase greenhouse gas emissions by not counting CO₂ emissions from burning wood fuels. Wood-fired power plants emit more CO₂ per unit of energy generated than coal plants, but RED II counts these emissions as zero. The treatment of forest biomass as low or zero-carbon renewable energy in both RED I and RED II has and will continue to increase harvesting pressure on forests in Europe and North America to meet the growing demand for woody biomass fuel in the EU.

The plaintiffs – a group of individuals and non-governmental organizations (NGOs) – contend that including forest biomass as a source of renewable energy in the Directive is incompatible with the environmental objectives of the Treaty on the Functioning of the European Union, including:

“preserving, protecting and improving the quality of the environment, protecting human health, prudent and rational utilisation of natural resources, promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change” (Art.191(1)).”

RED II binds EU Member States to achieve an EU-wide target of 32% energy consumption from renewable sources by 2030, and is a critical element in the EU’s overall goal to reduce carbon emissions by 40% below 1990 levels by 2030. The case argues that in approving the text of the Directive, the European Commission, Parliament, and Council failed to take account of available scientific and technical data regarding the potential for forest biomass harvesting and combustion to harm forest ecosystems and undermine climate goals. Despite warnings from EU advisors and other experts, RED II ignores the precautionary principle and the principles of preventative action, as required under the Treaty (Art.191(2-3)).

The plaintiffs contend that the inclusion of forest biomass in the Directive violates their fundamental rights and freedoms. Each has suffered, and will continue to suffer, direct harms from the consequences of the Directive’s biomass energy policy. They argue that these infringements are neither necessary for, nor genuinely meet, the important environmental protection objectives of the EU, and therefore are impermissible under the EU Charter on Fundamental Rights (Art. 32 and 57).

If the Court agrees to hear the case with the six plaintiffs, it would be the first time that an NGO would have been granted standing before the court to challenge an EU law or regulation, thus the case in itself is potentially precedent-setting.

Only the European Court Can Remedy the RED

Currently, forest biomass is mainly used to produce four categories of energy: residential heating; heat and power in the commercial/industrial sector; wood pellet manufacturing; and, to a limited extent, feedstock for liquid biofuels. RED II explicitly calls on Member States to “exploit the full potential of biomass” as a renewable energy source, including existing timber resources, “provided that sustainability and greenhouse gas emissions

saving criteria are met.” As defined in the Directive, biomass produced from forestry can include whole trees as well as secondary material such as wood wastes and forestry residues.

The case documents how the criteria used in the RED II for assessing greenhouse gas emissions savings, sustainability, and land use impacts will not account for the majority of carbon emissions associated with burning wood fuels – because it fails to count the CO₂ coming out the smokestack when wood is burned. While the RED II states that the criteria “ensure” forest biomass delivers carbon savings compared to fossil fuels, in fact, the criteria are not capable of doing this. Thus, to the extent the Directive drives increased use of forest biomass, it undermines its own purpose of reducing greenhouse gas emissions, and in fact will result in increased net CO₂ emissions and degradation of forest carbon sinks.

In addition to the climate impacts, the lawsuit documents the environmental, societal, and public health impacts associated with forest bioenergy, in particular how the RED has increased damaging forest cutting in Europe and North America to meet the increased demand for forest biomass in the EU. The plaintiffs in the case have experienced harms to their health, livelihoods, communities and cultural traditions as a result of logging, wood pellet manufacturing, and production of biomass energy.

Because Member States are bound by RED II and cannot make the changes needed, the plaintiffs have no choice but to seek redress directly from the European General Court. The plaintiffs are asking the Court to annul the forest biomass provisions in RED II, and thus to halt the continued incentives and subsidies that have been driving the rapid scale-up of industrial logging in Europe and North America and the increased reliance on forest bioenergy in the EU.

The Plaintiffs

The plaintiffs come from six countries and two continents and include both individuals and NGOs. They each been impacted by biomass energy production.

ESTONIA: Hasso Krull is an expert and practitioner in the ancient pagan religion and cultural traditions of Estonia, where wide-

scale industrial logging has altered the landscape and desecrated or destroyed dozens of treasured sacred sites such as forest groves, springs, and rock formations. While Estonia is one of the smaller European countries, it is now the third largest wood pellet producer.

IRELAND: **Tony Lowes**, a founding member of Friends of the Irish Environment (FIE), has been tirelessly campaigning to shut down peat-burning power plants in Ireland since 2009. These plants were scheduled to close until the Republic of Ireland announced a renewable energy subsidy if they co-fired with 30% woody biomass, thus continuing the ecological damage from peat extraction.

FRANCE: **Bernard Auric** and members of the **Association de Lutte Contre Les Nuisances et la Pollution (ALNP)** have suffered harm to their health and property values during the conversion of a nearby coal plant to biomass in Gardanne. The conversion “has turned our lives into a nightmare” due to excessive levels of noise, smoke, and air pollution, including wood dust from wood chip piles and passing trucks.

ROMANIA: Scientists, activists and conservationists with the NGO **2Celsius**, founded by **Raul Cazan**, are fighting to protect some of the last remaining primeval forests of the continent where intensive logging is taking place, much of it illegal. Most of the impacted forests are in the Carpathian Mountains, where conditions for forest regeneration are becoming more and more tenuous.

SLOVAKIA: **Peter Sabo** is a forest ecologist with the **WOLF Forest Protection Movement**, an NGO working to prevent the destruction of forests in Slovakia. He has a deep and lifelong connection with these forests and has witnessed “irretrievable damage by the logging industry,” often conducted illegally in protected national parks, reserves, and even a UNESCO World Heritage Site.

USA: **Kent Roberson** owns thirty acres of forested land in eastern North Carolina that his family has lived on, farmed, hunted and preserved since 1898. The US Southeast is being heavily logged to provide wood pellet fuel to export to the UK and EU. Roberson

has witnessed how his now “little island of forest” has been impacted by clearcutting of the once biologically-rich bottomland hardwood forests around him.

The plaintiffs’ case is supported by witness statements from: Adam Colette, Program Director, **Dogwood Alliance**, North Carolina, USA; Dominick A. DellaSala, PhD, Chief Scientist, **Geos Institute**, Oregon, USA; Gabriel Paun, President of **Agent Green**, Romania; **Timothy Searchinger**, Research Scholar, Princeton University; and Jeff Turner, **Blackwater Nottoway RiverGuard**, Virginia, USA.

Dr. Mary S. Booth, director and founder of the US-based NGO **Partnership for Policy Integrity**, served as Senior Science and Policy Advisor and also provided a witness statement. The **Center for Climate Integrity** (US) and **Fern** (EU) have provided support and assistance.

The Applicants are represented by Rowan Smith, Anna Dews and Carol Day, Solicitors, of Leigh Day; David Wolfe Q.C., Barrister, of Matrix Chambers; and Peter Lockley and Ben Mitchell, Barristers, of 11KBW.

The EU’s Policy on Wood-Burning Conflicts with the Goals of the Paris Agreement

The Paris Agreement commits the EU to pursuing efforts to limit temperature rises to 1.5°C . According to the Intergovernmental Panel on Climate Change (IPCC), this will require global CO₂ emissions to peak over the next decade and decline rapidly thereafter to achieve a “net-zero” emissions target by 2050. Achieving “net zero” emissions means balancing carbon emissions with carbon sinks, mainly forests. EU recommended policy is to pursue economy-wide carbon neutrality by 2050, which will require massive effort in both directions (reducing carbon emissions and restoring and expanding forests).

The Paris Agreement also emphasizes the role of forests and other terrestrial sinks for carbon. Article 5 of the Paris Agreement urges countries to protect and expand forests and to “take action to implement and support [...] activities relating to reducing emissions from deforestation and forest degradation.”

The legal case contends that RED II will inevitably increase forest cutting for bioenergy and increase associated greenhouse gas emissions, while reducing forest capacity for absorbing and sequestering carbon. The plaintiffs argue that the inclusion of forest biomass as a source of renewable energy in RED II thus fatally undermines the climate goals of the Paris Agreement and the Directive itself.

Biomass Energy is a Large and Growing Part of EU's Renewable Energy Mix

The use of biomass for energy, primarily solid biomass burned for heat and power (wood, agricultural residues, and black liquor, a by-product of the pulp and paper industry), increased significantly in the EU from 1990 to 2016, particularly in the years leading up to and following the 2009 RED. By 2016, bioenergy constituted almost 65% of renewable energy inputs in the EU, nearly twice as much as all the other renewable energy sources combined. Solid biomass inputs increased 140% over the same period and constituted 45% of renewable energy inputs in 2016.

While data from earlier years is not available, the wood pellet industry has grown rapidly over the past decade to fuel the increased demand for bioenergy in the EU, and the RED II anticipates that this demand will continue to grow. Eurostat data show an increasing proportion of the wood pellets burned in the EU and UK are imported, mostly sourced from forests in the USA and Canada.

The RED Ignores Most of the CO₂ Emissions Associated with Forest Bioenergy

The Directive counts CO₂ emissions from burning forest biomass as zero. As a result, woody biomass is considered “carbon neutral” at the point of release, even though wood-fired power plants emit more CO₂ per megawatt hour than fossil-fueled power plants, including coal. This is driving the conversion of existing coal plants in the EU and UK to biomass, which counts towards Member States' renewable energy targets and brings in lucrative public subsidies. As the European Commission's Bioenergy Impact Assessment states,

The European Commission's "Bioenergy Impact Assessment" states, "An important driver for the development of low efficiency conversion of biomass to energy is the fact that replacing coal by wood in existing coal-based power plants is an easy way to increase the use of renewable energy at national level without major additional investments or changes to the existing infrastructure. The national policies are in turn driven by the legally binding requirement to reach the 2020 targets. A number of Member States have therefore followed this path and given public support to such practices. Large-scale electricity-only biomass plants often receive state aid in order to be economically viable, as well as other advantages such as priority dispatch." (EC Bioenergy Impact Assessment, p. 21).

By treating biomass in the same way as wind, solar and tidal sources of energy, which are zero-carbon at point of use, the Directive perpetuates an assumption that energy from forest biomass is instantaneously carbon-neutral. Carbon neutrality of biomass fuels is based on the assumption that equivalent CO₂ will be sequestered by regrowth over a certain time period. But when forests are converted to fuel, it can take decades to over a century for new growth to replace the trees that were harvested, if regrowth happens at all. This time lag is not factored into the EU's promotion of forest bioenergy as a means to achieve its 2030 greenhouse gas emission reduction targets.

The Directive does count emissions if biomass production results in a land-use change – for instance if forested lands are converted to agricultural crops. In this case, the carbon emitted by eliminating the forest is counted. However, clearcutting a forest does not count as deforestation if there is no change in land use. Thus, the RED II will count emissions from burning wood sourced from heavily damaged or clearcut natural forests as zero, even if the impacts are similar to those from converting the forest to another land use.

The only CO₂ emissions from woody biomass that the Directive counts for assessing the greenhouse gas impact of forest biomass energy are emissions from fossil fuels burned during biomass fuel harvesting, manufacture, and transport. Consequently, in addition to not counting the direct emissions from burning woody

biomass, there are significant upstream carbon losses that may not be counted, such as biogenic emissions from burning forestry residues to process and dry wood pellets.

The RED is Accelerating the Destruction of Natural Forest Ecosystems

From the Carpathian Mountains in Eastern Europe to the wetlands and coastal plains of southeastern United States, plaintiffs and witnesses in the legal case have experienced firsthand the impacts of industrial logging to meet the burgeoning demand for woody biomass fuel in the EU. While forestry and logging are not new to these areas, the scale and intensity of logging has changed:

- Hasso Krull, who has witnessed widespread forest destruction in Estonia, stated in his testimony that in the past, “Logging was mostly conducted in the winter, when it would do the least damage to the soil, and clear cuts were rare, small and rather dispersed. [Today] Industrial logging, including and especially logging for biomass fuel, takes everything.”
- Kent Roberson, the US plaintiff who lives near one of Enviva’s wood pellet plants in North Carolina, wrote, “In the last ten years or so, logging has increased tremendously. Whereas the companies used to do selective cutting, now they just go in and mow everything down indiscriminately. They log a lot more than they used to – especially down in the wetlands. There are places around the Roanoke River that are bare and have been deforested right down to the bank. They lay logs down in the creek beds so they can drive the equipment in there.”
- Peter Sabo, a forest ecologist with the WOLF Forest Protection Movement in eastern Slovakia, attested, “I have experienced a number of cases when the wood was logged for production of energy, often illegally, and often in protected and most vulnerable areas like National parks, Nature reserves – areas with higher level of protection in Slovakia, and even in the UNESCO World Heritage Site [Ancient and Primeval Beech Forests of the Carpathians and Other Regions of Europe].”

EU Bioenergy Demand is Driving Logging in Rare and Special Forests

Whole forests that were previously mostly left alone, like the wetland forests of the Southeast where hollow or gnarled trees

predominate, are in the crosshairs of the wood pellet industry of the US Southeast. While such forests are often called “low value” by the logging industry because they supply little sawn wood, in fact they have immense value for functions such as wildlife habitat, flood regulation, air and water purification, soil retention and carbon storage. Older, more carbon-rich forests are true “hotspots” of biodiversity and carbon storage.

The market for wood fuels as a result of RED is so strong in some parts of Europe that even “high value” trees suitable for lumber and other harvested wood products are instead being used for biomass fuel. Peter Sabo and his colleagues at WOLF documented that higher quality wood was being burned at power plants in Slovakia, despite a Slovak law saying that in order to be eligible for state subsidies only the lowest quality wood was allowed to be used.

Testimony from Gabriel Paun of Agent Green highlights exploitative and illegal logging in the primeval forests of Romania, driven in part by increasing demand for wood fuel. Testimony from Dr. Dominick DellaSala of the Geos Institute discusses the expanding pellet industry in the carbon-rich inland rainforest of British Columbia, where the trees that have been left alone are some of the biggest in North America.

To the extent that increased bioenergy demand drives additional harvesting and moves fuel sources away from forestry “residues” and toward whole trees specifically cut for bioenergy, this will further increase net CO₂ emissions and impair natural forest functions. Nothing in the Directive’s sustainability criteria prevents this from occurring.

The RED II Will Drive Natural Forest Conversion

The demand for woody biomass fuel has driven conversion of natural forests to tree plantations, particularly in the US Southeast, as well as logging in sensitive ecological areas that are unlikely to regenerate for centuries to come, if ever. In both cases, RED II ignores the potential climate impacts, since the land use will technically remain as forest.

In the US Southeast, there are no laws that limit the conversion of natural forests to plantations. Over the past 50 years there has

been a significant increase in pine plantations at the expense of natural forests, and this pattern is accelerating. The conversion of bottomland hardwood forests (often wetland habitats) to pine plantations has caused significant losses of biodiversity, soil carbon storage, and natural forest functions such as flood water absorption.

In Europe, the increased pressures of climate change, including warming temperatures and changing precipitation patterns, are anticipated to weaken existing forest systems and decrease growth. In the Carpathians, “intense harvesting ... basically amounts to deforestation,” attests Raul Cazan of 2Celsius in Romania, one of the NGO plaintiffs in the legal case. “Conditions for forest regeneration following logging are becoming more and more tenuous. Effectively, logging in the mature Carpathian forests leads to a barren ecosystem that contains just a fraction of the previous carbon stocks, and contains almost none of the habitat value that these magnificent forests have for Europe’s wild fauna.”

The Directive’s Sustainability Criteria for forest biomass do nothing to address the carbon and other ecosystem impacts of biomass harvesting. There is no obligation to ensure that forests regenerate to sequester more CO₂, and no consideration of the time that such offsetting would require. There is no prohibition against other damaging actions, for example clearcutting a mature biodiverse natural forest for biomass fuel, then replacing it with a monoculture pine plantation. Neither the Sustainability criteria nor the Land Use, Land Use Change and Forestry (LULUCF) criteria obligate Member States, biomass producers or energy providers to ensure that their operations do not in fact degrade forest carbon stocks.

The EU’s Demand for Forest Bioenergy is Harming People and the Environment

The legal case documents significant harms to public health, communities, and the environment at every step of the bioenergy production process. These include ecologically damaging forestry practices (including conversion of natural forests to pine plantations), wood harvesting, wood pellet and chip processing,

transport, and ultimately combustion of the woody biomass to produce heat and energy.

The plaintiffs have each been impacted by logging and bioenergy production, with:

- destruction of cultural heritage and sacred sites in Estonia, including forest groves, springs and rock formations that are still revered as part of the ancient pagan religion practiced there
- logging of pristine ancient forests of Romania and Slovakia and illegal logging in protected national parks and reserves, including within a UNESCO World Heritage Site
- harms to health, economic well-being and civic environment from the conversion of coal to wood fuel at the Gardanne plant in France, which is causing excessive noise, wood dust, and air pollution problems for nearby residents
- co-firing of wood with peat at power plants in Ireland, thus perpetuating ecologically damaging peat bog extraction
- damage to property by logging activities to produce wood pellets as biomass fuel in the Southeast US, as well as loss of hunting values, wildlife habitat, and flood protection

Several witnesses to the legal case attested to another direct consequence of the Directive's promotion of forest biomass for use in electricity/heating, the development of the wood pellet industry in the US Southeast, and also in Canada. Facilities for manufacturing wood pellets from raw biomass are themselves significant generators of air pollution that is harmful to human health.

The plaintiffs contend that these practices have infringed on their fundamental rights, as established in the EU Charter on Fundamental Rights, including their right to respect for private and family life (Article 7), right to property (Article 17), right to a high level of human health protection (Article 35), right to a high level of environmental protection (Article 37) and the freedom to manifest religion (Article 10).

Despite the harms caused by the combustion of forest biomass, the Directive authorizes mechanisms to encourage the expansion of this harmful energy source. This violates Art.191 (2) of the Treaty on the Functioning of the European Union, which states:

“Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.”

The legal case cites numerous reports and warnings that were submitted to the EU prior to the adoption of RED II concerning the environmental impacts of bioenergy production and the potential of burning forest biomass to produce increased greenhouse gas emissions, relative to fossil fuels. For instance, the European Academies’ Science Advisory Council (EASAC), an advisory body to the EU, wrote to the President of the European Commission:

“The legal mandate to record forest biomass-fired energy as contributing to the EU’s renewable energy targets has had the perverse effect of creating a demand for trees to be felled in Europe or elsewhere in order to burn them for energy, thus releasing the carbon into the atmosphere which would otherwise stay locked up in the forest, and simultaneously drastically reducing the carbon sink strength of the forest ecosystems... The potentially very long payback periods for forest biomass raise important issues given the United Nations Framework Convention on Climate Change (UNFCCC) aspiration of limiting warming to 1.5 °C above preindustrial levels to ‘significantly reduce the risks and impacts of climate change’. On current trends, this may be exceeded in around a decade. Relying on forest biomass for the EU’s renewable energy, with its associated initial increase in atmospheric carbon dioxide levels, increases the risk of overshooting the 1.5°C target if payback periods are longer than this.”

Despite the well documented risks with the expansion of harvesting and combustion of forest biomass, the Directive failed to apply the precautionary principle and preventative action principles by placing limits on the use of forest bioenergy.

Promoting Forest Biomass to Combat Climate Change Violates the EU’s Flagship Treaty

This case lays out a comprehensive argument to the European

General Court as to why promoting forest biomass energy through the Renewable Energy Directive is incompatible with EU policies and the global imperative to combat climate change. Article 191 of the Treaty of the Functioning of the EU states that:

(1) Union policy on the environment shall contribute to pursuit of the following objectives:

- preserving, protecting and improving the quality of the environment,
- protecting human health,
- prudent and rational utilisation of natural resources,
- promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.

There is nothing prudent or rational about incentivizing increasing greenhouse gas emissions, destroying natural carbon sinks, and ignoring the environmental, climate, and societal impacts of this policy in Europe and worldwide, particularly when there are alternative, genuinely zero or low-carbon sources of renewable energy available, like the wind and the sun.

The plaintiffs in this case have experienced unique and specific harms related to the harvesting, processing, and combustion of woody biomass, driven in whole or in part by the EU's ongoing treatment of forest bioenergy as carbon-neutral. Inasmuch as we are all impacted by climate change, this legal case has global ramifications.

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