

Open Letter to the Government of Estonia and to EU member states considering purchasing renewable energy certificates from Estonia

Burning trees with oil shale must not be rewarded with green energy subsidies

The undersigned groups call on the Estonian government to exclude the co-firing of wood with oil shale from renewable energy subsidies and from inclusion in auctions of renewable energy certificates sold to other EU member states ('statistical transfer auctions').

The groups call on other EU member states to refuse to buy renewable energy certificates from biomass co-firing with oil shale from Estonia to help meet their own renewable energy targets.

Background:

The Estonian government wants to allow the state-owned company Eesti Energia to start co-firing large amounts of wood in its oil shale power stations. Eesti Energia will be able to receive some renewable energy subsidies for doing so. More importantly, the government wants to allow other EU member states to purchase renewable energy credits from biomass co-firing in Estonian oil shale plants.¹

This would be bad news for forests, people and for the climate, for the following reasons:

- It would help prolong polluting, high-carbon oil shale burning in Estonia;
- It would accelerate the destruction of Estonia's forests by creating a major new demand for wood in a country where logging rates and practices are already highly unsustainable;
- It would push up the price of heating and thus increase energy poverty
- It would compete with genuine, low-carbon renewable energy, both in Estonia and in any EU member state that buys renewable energy credits generated from cofiring in Estonian oil shale plants

Subsidising the co-firing of wood with oil shale would 'reward' one of Europe's dirtiest energy industries

Over 80% of Estonia's electricity is generated from oil shale. As a result, Estonia has the highest per capita CO₂ emissions of all EU member states except for Luxembourg², and its total CO₂ emissions were higher in 2015 than in 2000.³ Opencast mining and the processing of oil shale also cause high levels of air, water and soil pollution. People living in the region of Ida-Virumaa, where the oil shale industry is located, suffer higher rates of respiratory and cardiovascular disease than those elsewhere in Estonia⁴, and have the country's lowest life expectancy for both men and women.⁵

Despite these serious environmental, climate and health impacts, Eesti Energia has stated that it expects to gain €11-16 per megawatt hour of electricity from biomass cofiring that is sold to other EU countries.⁶ Cofiring could boost the company's overall income from the oil shale power plants by up to €32 million a year.⁷

Accelerating forest destruction

Up to 2.9 million m³ of wood a year could be co-fired in Eesti Energia's oil shale plants.⁸

Around 50% of Estonia is classified as forest, and its forests are of high recreational, economic⁹ and spiritual¹⁰ importance to people. Estonia is home to 12% of Europe's threatened species and logging and wood removal are one of the key threats to wildlife.¹¹ Between 2001 and 2015, Estonia lost 205,000 hectares of tree cover¹². The Nature Conservation Commission of the Estonian Academy of Sciences has warned: "*Today's forest management as a whole is unsustainable in its present trend, does not guarantee biodiversity conservation, takes little account of ecosystem services and therefore needs to change.*"¹³ Yet the government wants to see annual logging rates increased from 10 mln m³ to 12-15 mln m³.¹⁴ The LULUCF requirement would limit mass burning of wood to 10 mln m³, the Estonian Environmental Agency estimates 8.5 mln m³ as the sustainable limit¹⁵, however various independent experts estimate that the sustainable rate would be about 6-7 mln m³ based on a median rotation age of 80 years.^{16,17}

Not low-carbon:

A large new wood demand for co-firing would inevitably rely on cutting down more trees. Many scientific studies show that the climate impacts of bioenergy sourced from increased logging are no better than those of fossil fuels (per unit of energy), when considered over a period of several generations.¹⁸ A letter to the European Parliament signed by 800 scientists, states: "*Even if forests are allowed to regrow, using wood deliberately harvested for burning will increase carbon in the atmosphere and warming for decades to centuries... – even when wood replaces coal, oil or natural gas.*"¹⁹ A recent study shows that even sourcing forest residues for energy will result in high carbon emissions over a period of several decades.²⁰

Pushing up the price of heat:

Bioenergy provides more than half of all heating in Estonia, and much of it comes from burning wood.²¹ This means that heating costs are highly sensitive to wood prices. A large new wood demand for electricity would increase wood prices and thus heating costs, which will most seriously affect the 21% of the population living in poverty.²²

Competing with genuine, low-carbon renewable energy

In Estonia, biomass electricity directly competes with wind energy, with wind energy subsidies having been capped and the government aiming for half of

'renewable electricity' to come from biomass²³ - even though Estonia has a very high potential for wind energy, which is genuinely low-carbon.

If other EU member states were to purchase renewable energy credits from co-fired biomass from Estonian oil shale plants, they would evade investing in truly renewable, low-carbon energy and instead help subsidise both forest destruction and one of the most polluting fossil fuel industries in Europe.

Signatories:

Markets for Change, (Australia)
Czech Coalition for Rivers (Czech Republic)
Estonian Seminatural Community Conservation Association (Estonia)
Estonian Fund for Nature (Estonia)
Estonian Forest Aid (Estonia)
Estonian Nature Tourism Association (Estonia)
EKOenergy (Europe)
Fern (Europe)
Amis de la Terre (France)
ARA, (Germany)
denkhausbremen (Germany)
Rettet den Regenwald e.V. (Rainforest Rescue), (Germany)
World Wildlife Fund European Policy Office, international
An Taisce Climate Committee (Ireland)
Gyvas Miškas (Lithuania)
Milieudefensie (Netherlands)
Friends of the Siberian Forests, (Russia)
Protect the Forest (Sweden)
The Bruno Manser Fund (Switzerland)
Biofuelwatch (UK/US)
Sandbag (UK)
Partnership for Policy Integrity, (US)
Natural Resources Defence Council, San Francisco, CA (US)
Global Justice Ecology Project, (US)
Dogwood Alliance (US)

Pivot Point, Shelton, WA (US)

Save America's Forests (US)

Sequoia ForestKeeper® (US)

Sound Resource Management Group, Inc. (US)

1 References:

Under the EU Renewable Energy Directive 2008, member states that have met their own renewable energy targets (as is the case for Estonia) can sell certificates for additional renewable energy to other member states which would not otherwise meet their 2020 target: ec.europa.eu/energy/en/topics/renewable-energy/renewable-energy-directive/cooperation-mechanisms

2 data.worldbank.org/indicator/EN.ATM.CO2E.PC

3 ec.europa.eu/eurostat/statistics-explained/images/b/b9/Total_greenhouse_gas_emissions_by_countries_%28including_international_aviation_and_indirect_CO2%2C_excluding_LULUCF%29%2C_1990_-_2015_%28million_tonnes_of_CO2_equivalents%29_updated.png

4 oecd.org/environment/estonia-should-reduce-its-oil-shale-reliance-for-greener-growth.htm

5 ojs.utlib.ee/index.php/PoA/article/view/poa.2016.25.1.05/8045

6 energia.ee/-/doc/8457332/ettevottest/investorile/pdf/annual_report_2017_eng.pdf

7 Up to 50% biomass can be co-fired with oil shale in the 300-megawatt (MW) Auvere power station and in a 215 MW boiler at the Balti power station. If those operate at full capacity, i.e. 8,000 hours a year, maximum electricity generation from biomass burned in both units would be 2,060,000 megawatt hours. At a highest potential price of €16 per megawatt hour, this would generate an additional income of €32 million per year.

8 This calculation is based on the assumption that the boilers would operate at 35% efficiency and that both the Auvere power station and the circulating fluidised boiler at Balti power station would cofire the maximum 50% wood. The cubic metre figure is cubic metres of overbark.

The government states that cofiring will initially be limited to 0.5 m³ wood a year, pending an impact assessment. However, civil society groups are concerned that the impact assessment may not be carried out in an objective, impartial way and point out that its recommendations do not have to be followed by the government.

9 Tourism – much of it nature and wildlife tourism - contributes three times as much to GDP than forestry and wood processing (knoema.com/atlas/Estonia/topics/Tourism/Travel-and-Tourism-Total-Contribution-to-GDP/Contribution-of-travel-and-tourism-to-GDP-percent-of-GDP and estoniantimber.ee/statistics/). Environmental degradation poses a serious threat to tourism. Furthermore, a high demand for woodchips as well as pellets competes with higher-value forestry industries which provide more jobs and more income.

10 See climatechangenews.com/2018/01/23/forest-watchdog-calls-protection-estonias-pagan-heritage/

11 cmsdata.iucn.org/downloads/estonia_s_biodiversity_at_risk_fact_sheet_may_2013.pdf

12 The figure is based on satellite data from the University of Maryland. Tree cover loss includes trees lost through clearfelling. See: globalforestwatch.org/map/8/58.41/25.30/ALL/grayscale/loss,forestgain?tab=analysis-tab&begin=2001-01-01&end=2017-01-01&threshold=30&dont_analyze=true

13 heureka.postimees.ee/4386435/teaduste-akadeemia-looduskaitse-komisjon-jatkusuutmatu-metsandus-vajab-muutmist

14 National Forest Strategy

15 https://www.envir.ee/sites/default/files/loppraport_2050.pdf Estonia's chances of moving towards a competitive low-carbon economy in 2050, final report, 2013, Tartu University, Stockholm Environment Institute's Tallinn Centre and the Estonian Fund for Nature

16 <https://www.ohtuleht.ee/862792/metsateadlane-toomas-frey-me-oleme-oma-metsa-juba-seitse-aastat-ette-ara-raiunud> Forestry scientist Toomas Frey: we've logged our forests seven years in advance already

17 <https://arvamus.postimees.ee/4403963/rainer-kuuba-miks-ministeerium-keeldub-diskussioonist-ja-rundab-praeguse-metsapoliitika-kriitikuid> Rainer Kuuba: Why does the ministry refrain from discussion and attacks the critics of today's forestry policy?

18 See biofuelwatch.org.uk/biomass-resources/resources-on-biomass/ for a list of relevant studies.

19 dropbox.com/s/l8sx5bl0h02x395/UPDATE%20800%20signatures_Scientist%20Letter%20on%20EU%20Forest%20Biomass.pdf?dl=0

20 iopscience.iop.org/article/10.1088/1748-9326/aaac88

21 taastuenergeetika.ee/wp-content/uploads/2017/08/Renewable-energy-yearbook_2016.pdf

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23 alstom.com/press-centre/2015/5/the-auvere-power-plant-in-narva-is-connected-to-the-transmission-network-in-estonia/