

Biofuelwatch response to:

# Consultation on controlling the costs of biomass conversion

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**Name and Position:** Duncan Law, researcher and campaigner

**Name of Organisation:** Biofuelwatch

**Address:** 14 Oxfgangs Hill, Edinburgh, EH13 9JH

**Tel:** 07958 635181

**E-mail:** [biofuelwatch@gmail.com](mailto:biofuelwatch@gmail.com)

## Key Points

1. **Biofuelwatch** applauds the government's ambition to reduce bill-payers support for Biomass electricity generation, recognising that *"When compared with [other genuinely low-carbon renewable] technologies, carbon savings from biomass conversion or co-firing are low or non-existent, and the cost of any savings is high."*
2. An abundance of evidence demonstrates that imported wood pellets that now constitute a significant proportion of the biomass supported by UK subsidies **does not meet the goals of the UK's own Bioenergy Strategy, to "deliver genuine carbon reductions that help meet UK carbon emissions objectives to 2050 and beyond."** taking into account *'carbon impacts for the whole system, including indirect impacts ... and any changes to carbon stores.'* Using **woody biomass for co-firing or conversion from coal power contributes at least as much carbon to the atmosphere as coal**, over decades and even centuries.<sup>1</sup> Biomass should therefore should also be phased out and not allowed as a legitimate abatement strategy under the government's coal phase-out.
3. Biomass electricity generation is inefficient (even under the government's so called 'good quality CHP', rarely achieving much more than the threshold 35%). This means that the energy contained in nearly 2 out of every 3 trees burned is simply wasted.
4. Biomass fails to meet key government policy aims of reducing greenhouse gas emissions, phasing out subsidy dependence, and promoting energy security. The use of bioenergy could undermine the UK's ability to meet its carbon budgets. Biomass violates protection goals of the Paris Agreement and the Convention on Biological Diversity. It runs counter to Aichi targets: *"Target 3- By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed.. and positive incentives for the conservation and sustainable use of biodiversity are developed and applied"* and Sustainable Development Goal 7.B to 'reduce biodiversity loss.'
5. **Biomass should not therefore be subsidised.** The lack of carbon saving and high cost applies as much to grandfathered units as non-grandfathered units.
6. The government should take this opportunity to amend the Renewable Obligation to **CEASE ALL SUBSIDY for non-grandfathered and grandfathered biomass electricity generation immediately.** This would be a logical complement to the Coal Phase-out to end a technology that is at least as polluting as coal. It

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<sup>1</sup> <http://www.biofuelwatch.org.uk/2017/summary-of-recent-biomass-research/>

would also save billions in subsidies which could be redirected to cheaper, genuinely low carbon renewable generation and demand reduction.

[We understand that other NGOs have submitted proposals that subsidy for non-grandfathered units be limited to 0.1 ROC until 2022 when the subsidy should end for non-grandfathered and grandfathered units alike. We understand that an immediate withdrawal of subsidy might decrease investor confidence and impact reliability of supply in the short term. Thus, if a ramp-down is the only practicable way, then we would reluctantly support the NGOs' option of ending all subsidy by 2022, rather than immediately. However, subsidies to bioenergy will soon exceed £1bn a year. Reallocating these funds toward reducing demand and developing lower-cost, genuinely low-carbon renewables, storage and a smart grid, and taking advantage of recent analyses like that showing that cold winter spells coincide well with high output from off-shore wind<sup>2</sup>, would be a more intelligent use of funds.. ]

**Q1 Do you agree that the cap on the total number of ROCs that can be issued to each biomass conversion or co-firing station in respect of generation from all its non-grandfathered units should be based on the highest number of ROCs issued to the non-grandfathered units of any affected station in any year prior to 2017/18? This would equate to a cap of 105,000 ROCs a year. If not, how would you recommend setting the level of the cap and why?**

Biofuelwatch recommends **the cap should be set at 0 ROCs a year** given that BEIS agrees with us that "carbon savings from biomass conversion or co-firing are low or non-existent, and the cost of any savings is high". To do otherwise would be to support perverse subsidies which fail to meet policy goals.

The cap should apply to grandfathered as well as non-grandfathered units. If this requires a new consultation that should be initiated forthwith.

Either of the two proposals will effectively prevent additional large scale subsidised co-firing or biomass conversions including Drax's 4<sup>th</sup> unit. We support this ambition.

The proposal is to reduce potential subsidy to non-grandfathered units from worst-case £250m down to £5-20m. It would be simpler and reduce administrative burden to reduce it to zero. The reduction in available subsidy is likely to deter those operators who have not already invested in biomass from new investment. So the impact on many of the generators of ceasing the subsidy would be little different. Setting the cap for individual generators at their level of historic use would ensure no increase in spend and the money saved would more than pay for any increase in administrative burden.

Conversely the 105,000 ROC cap may encourage generators who haven't yet co-fired to start, resulting in increase subsidy and *increased administrative burden*.

**Q2 Do you agree with the proposed approach of pro-rating the level of the generator cap in the event that its introduction is delayed? If not, how would you recommend applying the cap in circumstances where it is introduced after the start of an obligation year and why?**

Biofuelwatch agrees with this approach. Of course pro rata on a zero cap is zero.

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2 <https://www.carbonbrief.org/uk-wind-power-can-help-meet-peak-winter-demand-study>

**Q3 What are your views on the likely impacts of the proposed generator cap, particularly on the annual generation and fuel mix of affected generators? Please provide evidence to support your answer.**

The cap even at 105,000 ROCs would likely remove any incentive to invest in co-firing biomass as it would produce no adequate ROI and would not offset the increased fuel costs. It might result in increased coal burning (a risk identified in the consultation) but in fact this will not increase real carbon emissions above those of biomass. It would affect the biggest burners (eg Drax unit) more than the reduced ROCs level but might encourage people not currently co-firing to increase up to the cap resulting in more biomass being burned overall.

Reducing biomass burning will however reduce particulate emissions which are particularly high from Biomass. See recent Biofuelwatch report<sup>3</sup> showing a more than doubling of particulate emissions from Drax's burning of biomass.

Equally it might extend the coal burning life of the plant beyond 2025 if it can burn biomass at a level that allows it to meet the EPS. **So we consider it vital that the Coal Phase-out does not permit burning biomass as a genuine abatement strategy.**

**Q4 Do you agree with the proposed level of support of 0.1 ROC/MWh for all biomass conversion and biomass co-firing bands? Please give reasons and provide evidence to support your answer.**

Biofuelwatch recommends ceasing subsidy for biomass for all bands of non-grandfathered and grandfathered stations and units. See above, point 7.

However this proposal would work well at dis-incentivising biomass conversion or co-firing equally across all projects. It would result in a marginally larger subsidy to Drax. But it would send a clearer message. So of the two options we favour the reduction to 0.1 ROC/MWh across the board.

**Q5 What are your views on the likely impacts of the proposed re-banding to 0.1 ROC/MWh for all biomass conversion and biomass co-firing bands, particularly on the annual generation and fuel mix of affected generators? Please provide evidence to support your answer.**

See answer to question 3 above.

We note that in your modelling to keep subsidy rises to £2m you say that a ROC level of between 0.008 and 0.03 ROCs/MWh are the level needed. This is nearer our suggestion of 0 ROCs than yours of 0.1. So if you are intent not to abolish subsidy but make it not worth taking up then we recommend you chose a number between those two.

A significant reduction in subsidy level across the board would affect biomass electricity equally from the first MWh generated and would almost certainly prevent operators who are registered but not currently co-firing from investing anything in co-firing or conversion. We support that outcome.

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3 <http://www.biofuelwatch.org.uk/2017/briefing-draxs-coal-to-biomass-conversion-increases-levels-of-dangerous-small-particles/>

**Q6 Do you agree with our proposed approach of including only non-grandfathered units or stations in England and Wales operating under the biomass conversion or biomass co-firing bands in the scope of our proposals? Do you think the proposed exceptions, particularly for generation at the 'Co-firing of regular bioliquid' and 'Low-range co-firing of relevant energy crops' bands, could have any unintended consequences? Please give reasons to support your answer.**

Biofuelwatch does not agree with this approach. As stated above we believe any modification to the Renewable Obligation should **cease subsidies for non-grandfathered and grandfathered units alike immediately.**

This is to avoid continuation of perverse subsidies for a technology that as the consultation document recognises offers "low or non-existent" and "high-cost" carbon-saving and evidence shows is at least as bad for climate change and the environment as coal. It would embarrassingly compromise the global leadership that the government has in phasing out coal if it continued to subsidise an 'abatement strategy' that is as bad as coal.

Ending subsidy would also free-up billions in subsidy to speed up the transition to genuine low carbon renewable energy.

Having acknowledged that Biomass is not low-carbon it is inconsistent to continue supporting it.

Biofuelwatch **does not support the exceptions for bioliquid and for relevant energy crops.** This might increase demand for feedstocks which can also have environmental impacts. Energy crops will often displace food crops causing indirect impacts including on price and carbon as new land is converted to grow the food crops. Increasing the use of bio-liquids can also increase price causing existing users of that bio-liquid to opt for alternatives such as palm-oil which has hugely greater environmental and carbon impacts which would outweigh any possible carbon gain in the UK.

**Q7 We propose to change the position outlined in the 2015 Government Response on changes to grandfathering policy so that grandfathered stations or units that temporarily drop down the bands are exempted from our proposals. Do you agree with this approach? Are there any other clarifications required to our grandfathering policy? Please give reasons to support your answer. Alternative options considered**

See answer to questions 6. We believe all grandfathered stations and units should be included in this cost-cutting (and impact reduction) measure.

**Q8 Apart from the proposed options of a generator cap or re-banding of support levels, do you have any other suggestions for limiting additional un-forecast LCF spend in a way that is fair to generators? Please give as much detail as possible. Summary and next steps**

Ceasing RO support for Biomass could result in savings of around £800m a year until 2027 which could be spent on genuine low-cost, low-carbon renewables which would yield even greater capacity. Contrary to industry hype biomass does not provide low-

carbon balancing services. Increased investment in smart-grid and storage technology will yield much greater long-term benefits and cost savings to bill payers. Recent modelling in the VIVID Economics Money to Burn 2 report<sup>4</sup> showed that continuing to support biomass conversion through a Contract-for-Difference (CfD) could result in the country paying an excess implicit subsidy of over £360 million compared to wind energy.

Biofuelwatch understands that the LCF is to be replaced, but there is no information as to what with. We believe that reducing climate change emissions and achieving a transition beyond burning should be among government's front line priorities and funded from general taxation rather than from a regressive levy on bill payments.

The best way to keep bills down in the long and short term is to support the lowest cost renewables such as on-shore wind and solar and to invest in conservation and energy efficiency. There is good evidence that German energy bills are lower than they would have been due to this kind of investment.

**Q9 Between Option A (generator cap of 105,000 ROCs per year applied to each biomass conversion or co-firing station in respect of generation at its non-grandfathered units) and Option B (re-banding to 0.1 ROC/MWh for all non-grandfathered biomass conversion and co-firing units), which option do you think is preferable for limiting additional un-forecast LCF spend in a way that is fair to generators? Please give reasons to support your answer.**

The best mechanism to prevent overspend on a technology that does not meet key policy aims would be an alternative option *between* Option A and Option B ie cease RO subsidy for all biomass altogether.

Of the two options the best would be the **re-banding to 0.1 ROCs/MWh for all units**. This would deter any new investment in co-firing across all the eligible operators and sends a clearer message. However it would yield slightly higher subsidy to the big operators like Drax 4th unit.

**Q10 Do you have any other comments on the subject matter of this consultation?**

We have seen the consultation response by the Royal Society for the Protection Birds which contains an excellent summary of biomass impacts. We will not duplicate that here. We attach:

- a Summary of Recent Biomass Research<sup>5</sup> prepared by Biofuelwatch in collaboration with UK and US NGOs.
- an Explanatory Note which accompanies a joint NGO letter going to the BEIS Secretary of State today.

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<sup>4</sup> <https://www.nrdc.org/sites/default/files/money-to-burn-ii-uk-biomass-ib.pdf>

<sup>5</sup> <http://www.biofuelwatch.org.uk/2017/summary-of-recent-biomass-research/>