The Foundation for the Economics of Sustainability

Position paper on the Carbon Border Adjustment Mechanism and the Emissions Trading System

Summary Proposal

1. **A 'climate club' of nations should be formed**. Its initial members would include the EU27, a bloc of low-income non-EU countries of similar total population to the EU, and other countries which are willing and able to meet the terms required for joining the club.
2. **All members of this climate club would participate in an extended 'upstream' Emissions Trading Scheme,** which would impose a reducing cap on fossil fuels at the point of extraction or import.
3. **Revenues** from fossil fuel permit sales to fossil fuel producers or importers **would be distributed between residents of climate club member nations on a per-capita basis**.
4. **Imports of products to the EU and other climate club members from non-member countries would be subject to a tariff-based 'downstream' CBAM**.

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1. Introduction

It seems clear that a well-designed Carbon Border Adjustment Mechanism will be essential in order for the EU to meet the terms of the Paris Agreement. Such a mechanism would end the climate-destructive giveaway of ETS permits to certain industries, while also preventing the undermining of those industries by less scrupulous rivals. It should prompt non-EU countries to speed up their own energy and resource transitions.

However, it appears likely that a 'downstream' CBAM which applies tariffs to the imports of products with a significant carbon footprint to the EU will prove extremely complex to develop and implement. It will be difficult to determine exactly which products to include and what level of tariff should be charged for each one. Indeed, it will probably be impossible to incorporate all 'imported' emissions in its calculations with complete accuracy; it will be a matter of doing the best that is possible with information that will always be somewhat limited.

Two other concerns arise regarding a CBAM. One is that from the outset, it will need to be considered a *temporary* mechanism that should gradually be dismantled as increasing numbers of non-EU countries become carbon-compliant with the EU. A CBAM should not be allowed to become an end in itself, and so care should be taken not to allow any long-term dependency to build up concerning any revenue collected via the CBAM.

Finally, it is essential that any CBAM does not hamper the potential of the least-developed countries to improve the wellbeing of their citizens.

In this paper, we will suggest a framework that we believe could help to address the issues described above. This framework would include two programmes - a modified and extended version of the existing ETS, and a new CBAM - which would be designed to balance each other out so as to help ensure that overall global carbon emissions are steadily decreasing[1]. As the ETS expanded, the CBAM would be able to shrink, until eventually it would no longer be necessary at all. The ETS itself would then also gradually be phased out, in line with the Paris Agreement goal of net zero emissions by 2050.

2. Why move the ETS upstream?

For many years - indeed, ever since the introduction of the ETS[2] - Feasta has been making a case for moving the monitoring and regulation of greenhouse gas emissions upstream[3]. We are therefore glad to note that this approach is gaining more attention at present, as for example in the Commission's September 2020 report, "Stepping up Europe's 2030 climate ambition: Investing in a climate-neutral future for the benefit of our people", which states on p106:

"Because of the large number of small emitters (many of which are private persons) in the buildings and road transport sectors, a downstream approach such as in the current ETS whereby the emitters themselves are regulated does not seem feasible when extending emissions trading to the two sectors. An upstream approach whereby not the emitters themselves but entities further up the supply chain are regulated, can remedy the challenges associated with the large number of small emitters in the two sectors."[4]

However, we believe the full potential of this upstream approach has yet to be recognised. It could easily tackle a far greater proportion of greenhouse gas emissions than those arising from buildings and transport. Indeed, we would go so far as to say that - in combination with other measures explained below - it represents the global economy's last best hope in achieving decarbonisation from fossil fuels in a just and equitable manner.

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[1] Since both the CBAM and the ETS will also need to be co-ordinated with EU member states' energy tax policies, Feasta has recently made a similar submission to the Commission's consultation call on the Energy Tax Directive (although its focus is primarily on the challenges associated with carbon pricing and the uses of revenue from carbon taxes or fees): https://www.feasta.org/2020/10/15/balancing-with-a-doughnut-feasta-position-paper-on-the-revision-of-the-european-commissions-energy-taxation-directive/

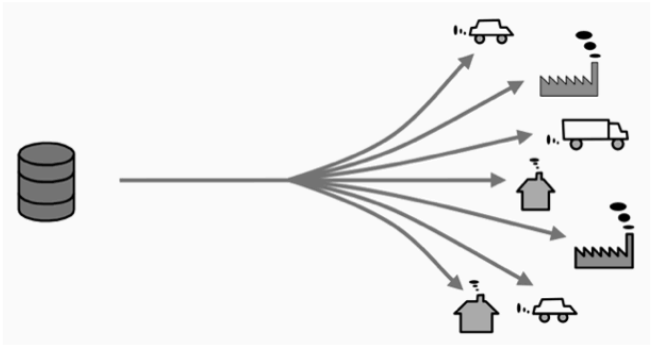
[2] https://www.feasta.org/2007/03/11/the-great-emissions-rights-give-away/

[3] Our proposed system which combines upstream regulation of fossil fuel supply with per capita revenue allocations is called 'Cap and Share'. More information on it can be found at http://www.framespotting.com/capandshare/, http://www.capglobalcarbon.org (which takes a global perspective) and http://www.sharingforsurvival.org . The latter collection of papers explores the policy implications of such a system in more depth.

[4] "Stepping up Europe's 2030 climate ambition:
Investing in a climate-neutral future for the benefit of our people": https://ec.europa.eu/clima/sites/clima/files/eu-climate-action/docs/impact_en.pdf

This is because the only way to *guarantee* that fossil fuel use will be eliminated over time is to place a legally binding and diminishing hard cap on its production and imports.

We are aware of a pervasive assumption both in policy circles and the media - and even in some environmental NGOs - that market forces can take the lead in ensuring that fossil fuel energy will eventually become outmoded and unpopular. The argument behind this assumption is that since renewables are getting cheaper, a sufficiently high carbon price will ensure that everyone will naturally move on from using fossil fuels, regardless of whether fossil fuel supply is formally phased out, and regardless of consumers' wealth and their view on the climate crisis.



The oil barrel on the left is the source of all the emissions on the right. If we wish to diminish and eventually eliminate overall oil emissions, why not simply reduce the amount of oil in the barrel?

Image source: http://www.sharingforsurvival.org/index.php/chapter-3-cap-share-in-pictures-by-laurence-matthews/

It is certainly true that the price of renewables has fallen in relation to that of fossil fuels in recent years. However, one of the reasons for this is that the energy that is required to extract fossil fuel, particularly oil, has increased in recent years as easily-accessible oil becomes scarcer[5]. (Even if there was no climate crisis, that would be an important reason to decarbonise the economy.) So it is not that renewables are now more efficient than oil was in its 'golden age', but rather that oil has passed its 'golden age' and has become less efficient to extract[6].

Moreover, despite the increasing difficulties in acquiring it, high-quality oil remains a highly potent fuel compared to every other source of energy. Renewables cannot provide an exact substitute for oil[7] [8], which is why it is proving particularly difficult to bring about the energy transition in the transport sector.

Wealthy climate skeptics have enough access left to the remaining high-quality oil to be able to wreak considerable havoc with it. Therefore, its extraction needs to be deliberately phased out.

The economic case for introducing supply-side, upstream decarbonisation measures has been well-argued[9]. Enforcing an upstream cap would be relatively easy in practical terms, as the vast majority of fossil fuels originate from a small number of international producers whose activates are already closely monitored. It would also ensure that wealthy climate change deniers would be obliged, at least within the ETS nations, to reduce their emissions.

The most logical approach to implementing a such a cap within the EU would probably be to modify the existing ETS so that it encompasses the import and production of all fossil fuel into the EU bloc, rather than solely the consumption of products with fossil fuel inputs. This would automatically include many of the emissions that are currently left out by the ETS, and the

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[5] http://energy-reality.org/wp-content/uploads/2013/05/09_Energy-Return-on-Investment_R1_012913.pdf

[6] See for example https://surplusenergyeconomics.wordpress.com/professional-area/

[7] https://www.feasta.org/2018/01/28/the-real-lesson-of-the-energiewende-is-that-the-german-economy-uses-too-much-energy-to-be-sustainable-and-needs-to-degrow/

[8] https://www.nhm.ac.uk/press-office/press-releases/leading-scientists-set-out-resource-challenge-of-meeting-net-zer.html?fbclid=IwAR3J94YKNBHWfI6_tt-4mWDLDIzzQ-iF5uAxv1l0fV6tJV1qVKXW0corjj8

[9] https://link.springer.com/article/10.1007/s10584-018-2162-x

'upstream' component would be far easier to monitor than the current piecemeal approach which tries to encompass a wide variety of sectors and is complex and difficult to enforce[10].

3. Why widen an upstream ETS beyond the EU?

We note that the questionnaire for this consultation call includes the opportunity to provide feedback on the following options:

"An extension of the EU Emissions Trading System to imports, which could require the purchasing of emission allowances under the EU Emissions Trading System by either foreign producers or importers"

and

"The obligation to purchase allowances from a specific pool outside the ETS dedicated to imports, which would mirror the ETS price."

While we would agree with the suggestion that the ETS should be extended so as to encompass emissions originating beyond the EU's borders, we fear that extending the existing 'downstream' ETS, or encouraging the introduction of a specific allowances pool dedicated to imports (that presumably would also act downstream), would add still more layers of complexity to an already complex process.

Industries in countries which export affected products to the EU might be tempted to create twin tracks of 'EU-friendly' and 'non-EU-friendly 'products, or even to privilege exports to non-EU countries, forming a kind of 'anti-climate club'.

Indeed, it must be recognised that any CBAM which imposes tariffs or permit fees on imports to the EU presents a danger of 'anti-climate clubs' forming between non-EU nations. This is one of the reasons why we wish to see the downstream CBAM that we are proposing being gradually phased out, in favour of an expanding upstream ETS that would render a twin-track approach impossible.

A way obviously needs to be found to actively encourage non-EU countries to join the climate club, while quelling any temptation for non-EU countries to simply find ways to work around the EU's regulations.

There will also need to be a clear - and preferably uncomplicated - mechanism for determining which non-EU countries are sufficiently carbon-compliant to be granted membership to the climate club.

The ultimate goal is of course to have a world in which no such mechanism is necessary at all anymore, as fossil fuel use will have been eliminated.

4. How would countries be encouraged to join the climate club?

There are two main incentives which could encourage non-EU countries to join the climate club.

Firstly, these countries would receive a significant amount of revenue from the sale of fossil fuel permits under the upstream ETS. The revenue they received would be in proportion to their

[10] This extension of the ETS could be carried out in various different ways, ranging from retaining the current system but adding in 'upstream' measures to restructuring the whole ETS so that it concentrates solely on 'upstream' measures. An outline of different possible approaches can be found here: http://www.sharingforsurvival.org/index.php/chapter-3-cap-share-in-pictures-by-laurence-matthews/ . Needless to say, the current free permit allocations to compensate for potential carbon leakage would need to be discontinued.

populations[11]. Countries who have a relatively low per-capita carbon footprint, and whose residents therefore use little fossil fuel, would be very well placed to gain financially. A floor price would be established for the fossil fuel permits to ensure that this revenue would make a significant impact (and to prevent systemic problems that could arise from a very low permit price). Such revenue would likely be of particular interest to lower-income countries in the Global South.

It is important to remember that, since fossil fuel supply would be capped and diminishing, there would be a strong and consistent economic incentive for recipients of this revenue to use the funds in 'green' ways.

We would urge that decisions about the allocation of these revenues within countries be made on a participatory budgeting basis, so as to avoid any danger of the funds being siphoned off by a corrupt elite. Indeed, we believe the most coherent and fair way to distribute these funds would be to allocate them per capita, along the lines of a Universal Basic Income (although it is unlikely that they would provide enough revenue to generate a full UBI by themselves). This income would help to free up sufficient time and energy for the recipients to make medium or long term financial plans. The impressive track record of the widespread cash transfer programmes in many Global South countries demonstrates the practical and creative ways that such funds are likely to be used[12]. Even with a modest floor price, the revenue could make a substantial difference to many unemployed or low-income people in the Global South who are currently having to deal with the effects of the COVID crisis.

A second incentive for joining the carbon club is that unlike other non-EU countries, carbon club members would not be subject to any CBAM-related tariffs on their exports to the EU. Since their fossil fuel use would be covered by the ETS there would be no need to impose tariff-based measures to encourage more climate-friendly production and consumption (although steps would probably need to be taken to prevent fuel tankering by the transport firms responsible for moving goods between the climate club members). Member countries would not only save money because of not having to pay the tariffs; they would also be spared a considerable amount of bureaucracy.

Carbon club membership need not initially be restricted to theEU and its partner countries; other countries - or indeed regions within countries, such as states of the USA- could potentially also form appropriate partnerships in order to become eligible to join.

5. How could the climate club work?

Here is an outline of how the climate club could be initiated and structured:

1. A country or bloc of countries is invited by the EU to join its climate club. The decision of exactly which countries to invite would be made in consultation with representatives of the countries in question and with development and anti-poverty NGOs. The overall population of this 'partnership region' would correspond approximately to the population of the EU-27. Its average per capita emissions would be such that, when added to the per-capita emissions of the EU and divided by 2, the result would approximate the world average in per-capita emissions.

2. The EU and the partnership region would both agree to impose a cap on fossil fuel production and/or imports. This cap would be monitored by independent inspectors in both regions.

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[11] The choice of partner nations in the climate club - in terms of population and per capita emissions - would ensure that the revenue generated by the EU and other club members would reflect their share of the use of the global atmosphere with reasonable accuracy. The population of the partner nations, taken as a whole, would be roughly equal to that of the EU, while their per capita emissions, when combined with the per capita emissions of the EU and divided by 2, would approximate the world average. This is based on the principle that the atmosphere is a common-pool resource and therefore we are all entitled to compensation for its use.

[12] http://www.capglobalcarbon.org/2017/03/31/capglobalcarbon-and-basic-income-how-could-climate-action-be-coupled-to-economic-empowerment/

3. Permits would be auctioned annually by an independent Climate Commons Trust to fossil fuel producers and importers within the countries. A price floor would be established to keep the system financially viable (preventing a total collapse in the event of a slump in effective demand for fossil fuel) and to ensure that the permits would bring in revenue of at least €10 per person per month[13]. If necessary, a maximum price would also be established[14].

4. Revenue from the permits would be distributed to everyone in the climate club countries on an equal per-capita basis. In the low-income countries this would be brought about in consultation with charities and other agencies with experience in distributing cash transfers, and would probably make use of the mobile phone network[15].

5. Each year, the quantity of permits available would diminish as the cap was lowered. The floor price would be adjusted to ensure the same minimum income.

6. As an income of €10 a month would not go very far in the EU, measures would also be introduced by member states, with the advice of the Commission, to protect low-income people in the EU from the effects of the rising energy bills brought about by this system. These measures would include energy retrofitting of housing, the installation of community heating, diversification of agriculture and subsidising of farmers' markets. They could be paid for by means of levies on the use of luxury high-CO2 products: for example, the motor tax on high-emissions vehicles in member states could be raised. A levy could also be placed on first class flight tickets, on luxury food products that are flown in from abroad, and on other high-CO2 luxury goods. Another possible source of funding to address fuel poverty could be from a 'Robin Hood' tax.

7. Other countries or groups of countries are encouraged to join the climate club over time; the prerequisites for joining would be that they would need to have average per-capita emissions - either individually or in their group - that were close to the global average per-capita emissions, and they would need to be willing to allow external inspectors to monitor their production and imports of fossil fuel. Higher-emissions countries outside the EU could partner up with lower-emissions countries in order to achieve the first of these requirements.

8. By 2050, fossil fuel production would no longer be permitted and there would therefore be no more revenue from fossil fuel permits[16].

6. What role would a downstream, tariff-based CBAM play?

As mentioned above, a CBAM would be introduced in parallel to the upstream ETS and would apply only to those countries not covered by the ETS. It would charge fees on imported products from those countries.

We will not enter into the details of which products should be targeted for tariffs and by how much; that is probably better left to those who have undertaken similar research for the current ETS. However, we would urge that EU energy policy in general include a phasing out of fossil fuel

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[13] This figure, while modest, could make a significant difference in many low-income countries.

[14] Please see our recent submission to the European Commission on the Energy Tax Directive for the rationale behind this: https://www.feasta.org/2020/10/15/balancing-with-a-doughnut-feasta-position-paper-on-the-revision-of-the-european-commissions-energy-taxation-directive/

[15] If a maximum carbon price is imposed, a quota system could also be introduced, again making use of the mobile phone network.

[16]Other revenue streams such as that from land value tax and other collective-property-based taxation could take over to provide a more permanent and steady income to the populations of all the regions included in the climate club.

subsidies, both within the EU-27 and elsewhere. This will need to be taken into account in the CBAM's design.

Regardless of exactly how these details are determined, a downstream CBAM will need to perform an important stopgap role by sending a signal to non-EU countries that it would be in their interests to join the climate club. It would be advisable, for this reason, to ensure that the tariffs imposed by the CBAM had a more financially onerous effect than the fossil fuel permit charges imposed by ETS.

7. The expanded ETS, the CBAM and the WTO

We are aware that there are some concerns about the CBAM in relation to the WTO. However, it appears that both an upstream and extended ETS and a downstream CBAM could comply with WTO rules under a couple of exceptions listed in Article 20:

'Nothing in this agreement shall be construed to prevent adoption & enforcement of measures:

B) Necessary to protect human, animal or plant life or health

G) Relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption."[17]

We reiterate here the need to incorporate the elimination of fossil fuel subsidies into the CBAM. This should also be covered by Article 20.

8. Conclusion

Ensuring that global decarbonisation takes place in line with the Paris Agreement requires taking a holistic, global view, and recognising the temporary nature of any measures introduced.

We believe that an upstream, supply-side approach to extending the ETS is the only way to address the climate emergency with anything like the requisite speed and scale. We have therefore proposed in this paper that the ETS be extended and reconfigured so that it limits, and gradually phases out, the production and imports of fossil fuel into the EU. We also suggest that a group of lower-income partner countries be invited to participate in this upstream ETS.

Together, all these countries would form a climate club which could expand as other countries become carbon-compliant.

Such a climate club would be relatively easy to administer in practical terms and it would reduce the chances of decarbonisation being sabotaged, either by wealthy climate-skeptics or by rival non-EU-based industries.

A complementary tariff-based CBAM would also need to be introduced for trade with those countries which are not in the climate club; however it would be considered a stopgap measure that should eventually be phased out.

We recommend that the revenues yielded by the ETS be allocated on a lump-sum per-capita basis. Additional levies on luxury uses of carbon could also be applied in order to augment this revenue.

An ETS-based climate club, created along these lines, would provide significant support to a wide group of nations during their energy transitions. It would be a significant step not only towards eliminating emissions from fossil fuels, but also towards achieving international climate justice. While mitigating climate disruption, it would also make the world a fairer place.

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[17] https://www.wto.org/english/res_e/booksp_e/gatt_ai_e/art20_e.pdf

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***Feasta (the Foundation for the Economics of Sustainability**) is an ecological economics think tank, based in Ireland but with international membership. 'Feasta' is the Irish word for 'in the future'. Our aims are to identify the characteristics (economic, cultural and environmental) of a truly sustainable society, articulate how the necessary transition can be effected and promote the implementation of the measures required for this purpose. Feasta is a member of the Irish Environmental Network, the Environmental Pillar, Stop Climate Chaos and the Wellbeing Economy Alliance. Further information at http://www.feasta.org .*

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