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Bellona Europa feedback to the European Commission's proposal for revision of the EU Emission Trading System

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The Bellona Foundation is an independent non-profit organisation that aims to meet and fight the climate challenges, through identifying and implementing sustainable environmental solutions. We work towards reaching a greater ecological understanding, protection of nature, the environment and health. Bellona is engaged in a broad spectre of current national and international environmental questions and issues around the world.

Pollution knows no borders, thus Bellona works with and against anyone and everyone relevant to our work, both nationally and internationally. Bellona has a solution-oriented approach to the environmental challenges and has since 1998 had extensive cooperation with a number of companies in different industries and businesses. Our approach is that to achieve results one must jointly work out the best social and environmental solutions, and make these financially profitable and viable. Bellona has always been and remains an independent watch dog that investigates, scrutinises and reports any environmental crime we uncover.

The Bellona Foundation was founded in 1986. We are currently 65 employees, working at the main office in Oslo and our three international offices in Brussels (Belgium / EU) Murmansk (Russia) and St. Petersburg (Russia). Bellona has been established with an office in Brussels since 1994.

Summary

The IPCC's 5th Assessment Report makes clear the necessity of Carbon Capture and Storage (CCS) and negative emissions, attained via Bio-CCS, in halting global average temperature rise below 2°C. The Report warns that the exclusion of this technology from the mitigation portfolio would entail abatement costs more than doubling. Moreover, it is clear that the large emissions from energy-intensive industries like steel, cement and chemicals cannot be deeply reduced without CCS. In the light of these facts, **the slow deployment of CCS in Europe is reason for great concern.** Bellona, therefore, sees the **Innovation Fund design as a crucial factor** to enable strategic CCS deployment.

Bellona welcomes the European Commission's proposal to continue the funding support for low-carbon innovation. **Drawing on the NER300 experience,** Bellona provides a number of **recommendations for defining the Innovation Fund.** Bellona believes that the Innovation Fund's main objective is to enable Europe to reach its climate targets. As the Energy Roadmap 2050 spells out, the EU will have to decarbonise its economy by reducing 80-95% of its greenhouse gas emissions compared to 1990 levels by 2050. This in turn will be dependent on the large scale deployment of CCS technologies. The Innovation Fund will play an important role in fostering deployment of CCS and helping to reach the 2050 targets cost-effectively.

Europe's electricity system is in the middle of a period of profound change and reform. Therefore, it is unavoidable that the energy and industrial products market landscapes in 2021 will look a lot different from that observed today and therefore Bellona believes it to be **unwise to agree on too prescriptive selection criteria** for the Innovation Fund. At this stage Bellona's main recommendation would be for the Innovation Fund's eligibility criteria to be **as flexible as possible.**

The following pages outline Bellona's reflections on central aspects of design of the Innovation Fund and its relation to other relevant mechanisms such as the Modernisation Fund and Connecting Europe Facility.

I. Ensuring a flexible Innovation Fund

First and foremost, Bellona sees the Innovation Fund as an enabling tool laying the groundwork for CCS. **The Fund's limited resources will not suffice to enable full CCS deployment and therefore its main goal should be to facilitate geographically strategic CCS projects** and, crucially, the building of CCS infrastructure that would foster the creation of hubs and further CCS deployment. To the same end, the Innovation Fund **should be compatible, in project criteria and time lines, with other funding mechanisms** of relevance for CCS, including the Modernisation Fund and Connecting Europe Facility (CEF).

The Fund should set its main focus on **facilitating strategic capture, transport and storage infrastructure** that best match individual Member State circumstances. Simultaneously it is of high importance that the Fund incentivises Member States to cooperate on developing CCS transport and storage infrastructure as future CCS deployment will be dependent on such cross border initiatives.

To that regard, the Innovation Fund must **target both full chain and part-chain** (see following section) CCS projects focusing on outcomes delivered, such as **developed storage sites and capture hubs**. Bellona therefore recommends the Fund to prioritise maximizing available funding for strategic top-ranked capture, transport and/or storage projects. While the current proposal's cap of 60% of all relevant costs of the projects is a step in the right direction, Bellona strongly **supports not capping the amount of funding to a single CCS project**. The experience from the NER300 modalities proved that a 15% funding cap per project has discouraged successful progression of CCS projects in the past.

For the Fund to fully enable a whole range of CCS projects, Bellona recommends to **remove the 500.000 tCO2 stored per year threshold**, as this may exclude single segment projects from funding.

What is more, because of the capital-intensive nature of CCS projects Bellona believes that the Fund should not solely provide full coverage of capital expenses; but should **also provide operational support** for CCS projects.

Bellona calls for **enhanced transparency in the project selection process**. In the first round of the NER300, the European Investment Bank submitted the initial eligibility checks and preferred plans to the European Commission, but information was not shared with the funding applicants. This lack of transparency meant funding applicants were unable to react and amend their plans and decisions (e.g. Air Liquide's Green Hydrogen project). Enhanced openness and transparency

towards Member States and funding applicants can be achieved by the setting up **of a feedback procedure**, where funding applicants are notified of the status of the application and have a possibility to amend and re-submit.

II. Allowing for funding of part-chain CCS projects

Bellona welcomes the current proposal from the Commission that recognises the need to remove verified direct avoidance of CO_2 as the only award criteria. Successful CCS projects should be evaluated based on several milestones for projects, not solely amount of verified CO_2 stored away.

In order to **use the resources available as strategically as possible**, Bellona recommends the Fund to allow for **part-chain CCS projects**, differentiating between three main types namely; capture projects, transport projects and storage projects – each respectively with different key performance indicators (KPIs):

- **Capture projects** should be awarded funding based on output of low carbon product in the industry sector or low carbon electricity generation in the power sector.
- **Transport projects** should be awarded funding based on planned outcomes of CCS pipeline infrastructure either between industrial CO_2 sources and/or to CO_2 storage sites.
- **Storage projects** should be awarded funding based on strategic location vice versa emission point sources and the volume of storage capacity de-risked. Funding should lay the basis for core CCS hubs in Europe such as in the North Sea.

Furthermore, CCS projects should be considered **eligible based on their proposed outcomes** and not on applied technology. All CCS projects eligible for funding under the Innovation Fund should thus be made up of either one or more part-chain CCS projects.

III. Allowing for 'blending' of funds

As CCS projects require large capital investments, **at least 50%** of the emission unit allowances (EUAs) in the Innovation Fund should be **allocated to CCS projects**, as these are more capital intensive than smaller, but more numerous renewable energy projects.

To that regard, as CCS projects are capital intensive, due to their large emissions mitigating potential, the possibility to **accumulate funding** from multiple funding sources would increase the success rate of CCS projects considerably. Therefore the Innovation Fund would have greater impact, if it was made **compatible with complimentary funds** such as the **Modernisation Fund,** the **Connecting Europe Facility** and the **structural and regional cohesion funds.**

IV. Allowing for flexible funding dates

In line with calling for flexible criteria and compatibility with other funds, Bellona recommends that the Innovation Fund features flexible funding dates (deadlines) in order to accommodate the complexity of CCS projects and the numerous actors and stakeholders involved. This would most likely increase the success rates of projects considerably (e.g. lack of flexibility in funding dates in combination with unstable political situation in Romania resulted in missed funding opportunity CCS project Getica). Consideration should additionally be given to the option of awarding operational funding in stages, such as during engineering, development and construction phases (e.g. case of Alberta government support). Furthermore, flexibility of monetising of the EUAs would allow for increased funding of individual project over the current tranches mechanism, as this would maximise the possible returns of the EUAs.

V. Incentivising carbon negative emissions with Bio-CCS

Bio-CCS technology is recognised by the IPCC's 5th Assessment Report to be essential to ensure that global temperature increase is limited to the 2°C threshold. However, there is currently no incentive to deliver Bio-CCS as the EU ETS does not reward mitigation activities which go beyond zero and achieve negative emissions. Bellona therefore recommends a **set-aside of 50 million EUAs** in the Innovation Fund **for the capture and storage of biogenic emissions**, thereby not excluding Bio-CCS projects from being eligible for funding.

These 50 million EUAs would be given to operators that achieve negative emissions, to sell to the market (or surrender for any fossil emissions if relevant), thus providing a direct monetary incentive to achieve negative emissions. A set-aside from the Innovation Fund, rather than adding new EUAs to an already flooded market, maintains the scheme's integrity as there are no 'additional offsets' created. Moreover, a dedicated number of EUAs provides a clear market signal. The limitation in scope, to cover early movers, prevents worries about possible unforeseen perverse effects, yet allows low-hanging fruits for CCS deployment to proceed.

Projects focusing on carbon negative technologies such as **Bio-CCS should remain eligible under the same terms and conditions** as conventional CCS projects.

VI. CO_2 use in industrial processes

Utilisation of CO_2 in the manufacture of industrial products and fuels, mineral carbonation, in greenhouses, and for enhanced oil and/or gas recovery (EOR/EGR), should be considered as an **insignificant contribution to emission mitigation**. Several industries already utilise CO_2 from low-cost sources in such processes. However, compared to CO_2 storage, anticipated utilisation of CO_2 can only make a modest contribution to reducing overall CO_2 emissions.

There is a wide range of utilisation options, many still at a technologically immature stage. **Pursuit of immature utilisation options could become a distraction** from the critical challenge of CCS deployment. Each CCU option will need to be assessed individually as life-cycle emissions and environmental impacts are highly diverse.[1] CCU is **no alternative to developing large-scale geological storage**, but may complement its development by supporting the **evolution of a CO_2 market**, notably at CO_2 hubs. EOR and EGR activities are moreover technically similar to CO_2 storage, and can therefore directly contribute to the development of large-scale EU CO_2 infrastructure and storage expertise.

VII. Establishing a Bridge Fund

Bellona strongly supports the allocation of 50 million EUAs from the MSR to supplement the transition to the Innovation Fund ("Bridge Fund"). However, Bellona recommends that a **precise starting date should be agreed on**, suggesting beginning in **2018**. This date is suggested to leave applicant projects enough time to prepare for the application process.

Bellona also sees 50 million EUAs, especially should they come under the current NER300 project terms and conditions, as **unlikely to suffice** in supporting any CCS projects. Bellona therefore recommends **a greater number** of EUAs to make the Bridge Fund fit for purpose.

The NER300 experience has proven that its terms and conditions were unfavourable for CCS deployment and thus a continuation of the NER300 modalities is not recommended by Bellona. Instead, Bellona would prefer to see the above-recommended **eligibility criteria for the Innovation Fund to apply to the Bridge Fund**.

[1] What lies in store for CCS?, IEA (2014), Chapter 5

In case, however, the existing NER300 criteria continue to apply to the disbursement of funds in the Bridge Fund, Bellona calls for attempts to **ensure the eligibility of part-chain projects** (as an absolute minimum) via the amending of guideline documents. The eligibility of part-chain projects under the Bridge Fund is necessary because the proposed 50 million EUAs would not be sufficient for full chain CCS projects. Failure to consider part-chain projects under the Bridge Fund would not only entail a failure to progress CCS deployment in the EU, but could also result in the waste of valuable EU resources.

VIII. Guaranteeing a stable EUA price via the establishment of a European Carbon Bank

To be able to reduce emissions 80-95% by 2050, the Innovation Fund must be able to provide for stable funding to both CCS and RES projects. However as the Fund is still dependent on a volatile EUA price, Bellona is concerned about the financial certainty that the Fund can provide.

Bellona therefore calls for the **creation of a buffer against the uncertainty of the EUA price** fluctuations. To ensure strategic CCS deployment, a stable and increasing price of carbon to incentivise emissions reductions is needed. Bellona believes that the MSR mechanism will not be fully equipped to address the problem of a persistently low and volatile EUA price – as it only indirectly aims to cure the EUA price by adjusting the surplus of EUAs in the market. To reduce speculation in the EUA price and to truly commit to the EU decarbonisation targets, Bellona advocates for **the creation of a discretionary price-based adjustment mechanism** into the ETS to adjust the overall supply of EUAs available at auctions in the market. This function could be performed by a so-called **independent European Central Bank of Carbon to manage the decarbonisation of the society by 2050**. The Bank would have a politically independent mandate to regulate the EUA market avoiding situations of over and under-supply.