Alstom recommendations for an expanded NER300 / EU Innovation fund
12 points to make it work

- **The Fund should primarily target large scale demonstration projects for power and industry in Member States which heavily rely on fossil fuels. It should notably include CCS**
- **Flexibility is key:**
  - **there should not be fixed / binding criteria regarding co-funding by Member State or maximum EU funding per project.**
  - **large scale demonstrators of innovative technologies are per se complex projects. Unexpected happenings and delays may occur**
- **Project risk sharing is a key aspect and risk management cannot be left entirely to the developer**

In its Communication on 2030 Climate and Energy package published in January 2014, the European Commission suggested "**the concept of an expanded NER300 system will be explored as a means of directing revenues from the ETS towards the demonstration of innovative low carbon technologies in the industry and power generation sectors**". Below are Alstom's recommendations regarding how such a fund should be structured and work in order to reach its objectives. They draw on our experience as supplier of technologies in several projects applicant or awarded NER300 funding (including the White Rose CCS project). **In order to swiftly establish this EU innovation fund after 2015, we recommend embedding these recommendations very early in the legislative process and in every step leading to the issuance of calls for proposals.**

1. A focus on a limited number of large scale demonstration projects in power generation and heavy industries

Demonstration projects under the Fund should target innovative technologies which are key for the decarbonisation of the power generation sector and heavy industries. Notwithstanding geographical balance, the Fund could primarily target large scale demonstration projects in Member States which are heavily reliant on fossil fuels, where the transition to a low carbon economy requires transformation of the power generation system. The Fund should aim at developing large scale demonstration projects for non-mature renewables and Carbon Capture & Storage.

2. The new expanded NER300 should succeed NER 300 without delay

The awards of NER 300 Phase 2 took place in July 2014. The Commission foresees a start of the new Fund post-2020, leaving thus a gap of minimum seven years (if we assume two years between the launch and the first awards) at a time when continuity in support to innovation and demonstration will be decisive. **EU cannot afford this "stop and go" approach without the risk to put an irreversible break to technology development.**

The legislative basis for NER300 elapses in December 2015[1]. **A prolongation of the program requires an amendment to the ETS Directive. It should be done as soon as possible[2] so that the first calls take place well ahead before 2020.** They should benefit from an even more accelerated examination and due diligence processes than it was the case for the second call of NER300 (18 months). In order to catch the rapid evolution of technological innovation, we believe this new funding program should be **open ended and rolling** with calls for proposals and awards every 2 years.

3. Set up a carbon "strike price" to secure the funding from the EUETS and give visibility to developers

The lower than expected carbon price has dramatically reduced the volume of public funding available under NER300, and hence the maximum funding per project. **The set-up of a "strike carbon price" guaranteed by the EIB** (for instance based on the "shadow carbon price the EIB uses for its due diligences) will offer visibility to project sponsors and applicants. For the sake of equal treatment, **this same price should be used in business cases of the CCS projects applications**.

4. Mobilise several sources of EU funding

To be meaningful and credible, the Fund should make available a very large amount of public money. **The figure of €25bn has been put forward in some occasions by the Commission;** we believe this is realistically ambitious. The following sources would need to be mobilised:

- **From the ETS: free allowances from the New Entrant Reserve non-allocated in 2020 and free allocations allocated to plants that will close before 2020 (under the IED regulation) could be monetised. Allowances from the Market Stability Reserve** could also be sold on the market[3]. **Without being monetised, allowances from the ETS could also be used as collateral to leverage financing at an agreed carbon price.**
- **Part of the 2014-2020 EU Budget could also be directed to this Fund:**
    - The Multiannual Financial Framework 2014-2020 has been agreed end last year defining 6 main commitments. However, a number of operational programmes details still need to be defined. **It would make sense to allocate funding to this expanded NER300 from either the 'Smart or Inclusive Growth' or the 'Sustainable growth: Natural Resources' lines.**
    - Structural funds, Coal and Steel Research Fund, H2020, Connecting Europe Facilities and the tax on financial transactions are also some sources of funding that could add up. Looking forward, the **Commission should in any case include funding for the EU Innovation Fund is its proposal for the next MFF (starting 2021) to be submitted at the lasts on 1 January 2018**.

To ensure an optimised use of EU money, it is critical to work out a solution allowing ETS installations to benefit from Structural Funds over 2014-2020.

[1] NER Decision, 2010

[2] Ideally, should take the opportunity of the legislative proposal on the ETS Market Stability Proposal to amend the ETS Directive for the prolongation of the NER300 programme before 2020.

[3] This is providing the carbon price has then reached a sufficient level, the MSR starts in 2017 at the latest and the backloaded allowances are directly put in the MSR

5. Adopt a 2-step approach for the ranking criteria.

Ranking in the current NER300 is based on a single criterion: the CPUP (Cost Per Unit Performance), i.e. the energy produced in the case of a Renewable project and CO2 stored in the case of a CCS project[4]. We believe the expanded NER 300 should adopt a 2 step approach to rank eligible projects:

- **The first criterion, applied within categories and sub categories defined by the legislation ('Decision') would be technology neutral and focus on the CO2 incremental abatement.**
- **The second one would discriminate among projects based on the cost per volume produced.** For power (including CCS), it would be the generation of clean electricity (which is more relevant when it comes to business cases for CCS projects); for industry, the production of a "clean" ton of cement or steel for instance.
- Other eligibility and ranking criteria could be the **replicability of projects or their return on investment. It is important that the EIB is part of the discussions establishing the ranking criteria.**

6. Operators should not be obliged to specify suppliers in the application file

Large scale demonstration projects of innovative technologies are by nature complex and exposed to more than one hazards. Taking into account the long process of NER300 like scheme (at least 6 years from submission to operations for a renewable project), it may well happen that the initial consortium collapses and that the operator has to change the supplier (and hence the technological solution) initially chosen.

In this regard, the current NER300 rules are extremely strict[5]. Should the project sponsor want to modify its application, it enters not only a very lengthy process but also faces uncertainty of agreement by the Commission. This puts the whole project at risks. A new NER300 should take this into account and give more flexibility to the operator.

7. Partners in a project should be allowed to be suppliers as well

The rules of the EU Research program (Horizon 2020) include a specific provision regarding the members of the applicant consortium: partners cannot be suppliers. **This rule strongly discourages technology suppliers to enter research projects as it diminishes immediate (and long term) commercial interest.** It is important to ensure this provision does not extend to NER300-like programmes and that projects partners are also able to be contractor or sub-contractors in the project.

8. The technology categories should be establish against reality check

When establishing the different technology categories, the NER300 programme marked out sub categories in a rigid manner, without always taking into account the realistic prospects of feasibility or research interest for the type of technology. For instance, off shore wind sub categories included 6MW, 8MW and 10MW turbines notwithstanding technical feasibility or future market interest for very large machines. **It resulted in a stronger competition within the 6MW sub category, and in the same, lost opportunities for the development of a bunch of technologies for the same nominal capacity (40 MW).**

[4] Such a criterion does not acknowledge the ultimate objective of CCS projects, which is not the capture of CO2 in itself, but the production of "clean" goods

[5] "Project Sponsors may not change their Proposal in substance (e.g. with regard to the technological solution to be deployed, scale, projected output or requested funding), once it is submitted to the EIB"; "the Commission has the discretion to treat the request for substantial change"

9. "Indicative" political support from Member States

In case of CCS projects, the endorsement (and the legally binding contract to be signed between the parties) by Member State has also proved to be an obstacle. This was one of the reasons why the Polish and Romanian CCS projects (Belchatow and Getica) were not eligible to award. **Provided other guarantees or funding / financing can substitute to Member States, only an 'indicative" political support should be required. It should not, in any case, be a criterion for eligibility.**

10. Uncap maximum EU funding per project

The current NER300 caps EU funding to a project to **50% of the eligible cost. It also limits the maximum funding per project at 15% of the total funding available under NER300.** As the carbon price shrunk over the past years, the total funding available under NER300 has decreased, not only compared to what was expected when the programme was launched, but also from Phase 1 to Phase 2.
The gap between expectations and reality has widen the projects' funding gap and made the financing extremely challenging at a time when governments seemed unlikely to provide further investment aid to projects. This has namely reduced the opportunities for CCS projects[6] against renewables which require lower capex and already benefit from broad support schemes for opex at Member States level.
In order to avoid such situation, we would recommend that the future "**Fund" does not cap the EU maximum funding for CCS projects, or at least, set a higher cap for CCS than for Renewable.**

11. Making more strategic use of EU grant money and innovative financial instruments such as "blending" mechanisms could unlock additional financing for projects.

Even if not capped, NER300 funding will not be enough to take a project off the ground and a wide investment gap will remain, which could only be closed by investment and finance from private sector sources. New NER300 should go beyond the "grant only" model, be open to all forms of contributions and be designed in such a way those investments from the private sector flow at scale and speed required. It could be done for instance by making any proposed project an investment more competitive versus the business-as-usual investment option, by offering a bunch of innovative financing solutions through the EIB:

- **The EIB already offers a credit enhancement** product targeted for clean energy. It could be offered systematically to applicant projects as a financing solution;
- **Bankable purchase agreement instruments** (purchase agreement for clean MWh and insurance to mitigate counterparty-risk) would establish the credit worthiness of the project as it would be easier for the project to raise financing against a secure pre-agreed rate for clean energy produced);
- **A carbon reduction performance-based subsidy** would provide a guarantee of power prices above the prevailing rate for power generated from eligible low CO2 sources on which long-term debt can be secured;
- **A loan guarantee programme** could provide guarantees to share with local commercial financial institutions the commercial risks of lending to clean energy projects. Such a guarantee could also be provided directly to project applicants;
- **Green bonds**[7] would offer a very high potential leverage of private financing as it would allow packaging of loans into green bonds to be sold to institutional investors.

The EU already actively promotes "blending" for investments in its partner countries[9], it seems appropriate to extend this promotion to projects and investments covered by the Fund. **Such optimised blending schemes**

[6] This was namely the case for Belchatow or Getica CCS projects.
[7] Power Purchase Agreements plus credit enhancement for collateralised debt obligations of project loans
[9] http://ec.europa.eu/europeaid/news/2012-12-12-platform-blending-funds_en.htm

diversify the risks and give additional chances to the projects to fly (especially the projects requiring important upfront capex and opex support).

12. The rules of the EU innovation fund should be fully aligned with the State Aid Guidelines for Energy and Environment

Large scale innovative demonstration projects (particularly CCS) can't fly without State support, be it covering government funding, market support scheme or risk sharing, etc. This includes grant funding, long term Contract for Difference payments (or other Feed in Tariffs, certificates, etc.) set to secure reasonable project returns for new enabled projects, and in case of CCS, any liabilities accepted by government for instance for storage risk or other derived failures (government guarantees).

The State aid guidelines for Energy and Environment published on 1 July 2014 acknowledge CCS can benefit from **State Aid both for investment and operation up to 100%.** However, in this regard, the text remains extremely limitative as it only foresees support for the incremental costs of CCS, not the whole new CCS project value. **In the case of CCS, it is crucial to consider projects as a whole, not only as the addition of a conventional plant (which may not benefit from State Aid) and CCS equipment. The definition of relevant costs in NER300 decision misses this point when it bases them on extra investment costs.**

In the case of CCS, it is also essential that studies needed prior to Final Investment Decision are considered an integral part of a CCS project, and could therefore benefit from State Aid up to 100% (classification as Environmental study would only allow partial State Aid (50% to 70% intensity rate). The expanded NER 300 Decision should make clear that all the studies linked to a CCS project qualify for the same aid intensity rate as CCS (100%), as stated in the Guidelines.

Technical groups including the European Commission, the European Investment Bank (EIB), other European bilateral and multilateral finance institutions and those finance institutions which participate in the EU blending mechanisms already work together for Aid related projects