

Using NER 300 Leftovers efficiently

Appropriate financing and funding solutions for innovative renewable energy demonstration projects

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Leftover funds from the 1st NER 300 call are a second chance to deploy a range of new renewable energy demonstration projects and make NER300 even more successful. Many demonstration projects are technically ready to go, but are struggling to reach financial close. Packaged in the right way, leftover funds can make them a reality. NER300 was providing free revenue support, its leftovers must remain “free” money – however differently packaged.

Across technologies and countries, innovative projects find themselves in two financial situations:

1. Some have a guaranteed revenue; revenue support or a Power Purchase Agreement (PPA) at an acceptable price per MWh produced.
2. Some have no guaranteed revenue or a revenue that is below required levels.

Currently, 80% of innovative demonstration projects are in the second situation¹. While financial instruments can help invest in the first situation, revenue support and grants are essential for projects lacking sufficient revenue streams.

Challenge: innovative demonstration projects require a combination of investment and revenue support. Financial instruments can only help in specific cases.

1. Projects with guaranteed revenue can benefit from low-rate financial instruments

These projects benefit from a suitable market price for their electricity production or have been awarded sufficient revenue support. Nevertheless, due to the uncertainties inherent to innovation, the projects do not have access to sufficient investments to get off the ground. The projects will be able to service debt and equity investments and guarantee sufficient return to financiers through the sale of electricity at a suitable price.

In this situation, a loan facility such as InnovFin EDP or an equity instrument such as the Investment Platforms under EFSI can help reach financial close, provided rates are set at a low enough level.

2. Projects with insufficient guaranteed revenue require grants and revenue support

It is estimated that, currently, 80% of innovative demonstration projects seeking finance fit this profile. These projects lack sufficient revenue support and/or the market price for electricity is too low. Financial instruments inherently require service repayment in the form of interests, dividends, ... They are not an option in this situation, as the revenue stream once the project is producing electricity will be insufficient to service debts and/or equity at a satisfactory rate for private financiers.

In this scenario, upfront grants are required to reduce the private part of the investment (CAPEX), thus lowering the cost of capital and allowing the projects to be viable at a lower electricity sale price.

¹ Based on industry consultation with current project holders

Providing revenue support is also important to enable debt/equity servicing, and to incentivise project developers to produce as much electricity as possible. As an example, the French tender system for tidal energy projects recognised the need for revenue and investment aid and offers both: grants – partly repayable – as upfront investment support, and a guaranteed tariff as production incentive.

Solutions for NER300 leftovers: Financing energy demonstration projects with EIB instruments and Horizon2020 grant awards

To tackle the financing challenges of innovative energy demonstration projects in both situations described above, leftover NER 300 money can be used in two ways. Both solutions proposed could be set-up rapidly as the instruments dedicated to supporting innovation already exist. They would merely require specific criteria to be drawn-up to ensure that they support the goal and possibly some of the pre-requisite (e.g. CO2 avoidance) of the NER300 scheme.

1. Increasing the lending capacity of InnovFin EDP.

This will allow projects with sufficient revenue support to access more and cheaper upfront capital and thus reach financial close. Given this is only relevant for a small part of existing innovative project, this amount should be limited to around 20% of the total leftover NER300 fund.

2. Create a specific demonstration call under Horizon 2020 for NER300-like projects

Most of the leftovers must be packaged as grant awards. Grant awards will reduce the need to source expensive private loan/equity for projects with insufficient revenue, thus reducing the overall cost of capital. They are the only way to ensure that such projects can go forward.

Revenue support would equally work in a number of cases, but might require longer negotiations on how it could be packaged and thus go against the rapid utilisation of NER300 leftovers. A mixed approach using milestones for pay-outs could be envisaged as part of the Horizon 2020 call.

Understanding the impact of a cost of capital, that can amount to over 100% of capital (CAPEX) and operational (OPEX) expenditure

Any financial instrument setup under NER300 or the future Innovation Fund should aim at keeping projects Internal Rate of Return (IRR) as low as possible to avoid burdening it with costs that have nothing to do with the cost of the technology. Ideally, a zero rate best fits with support to new technologies.

For innovative technologies, such as tidal energy, the IRR required by financiers can be in the range of 10% to 12%, compared to figures as low as 2% to 3% for commercial large hydroelectric projects, 5% to 6% for onshore wind and 7% to 8% for solar PV.

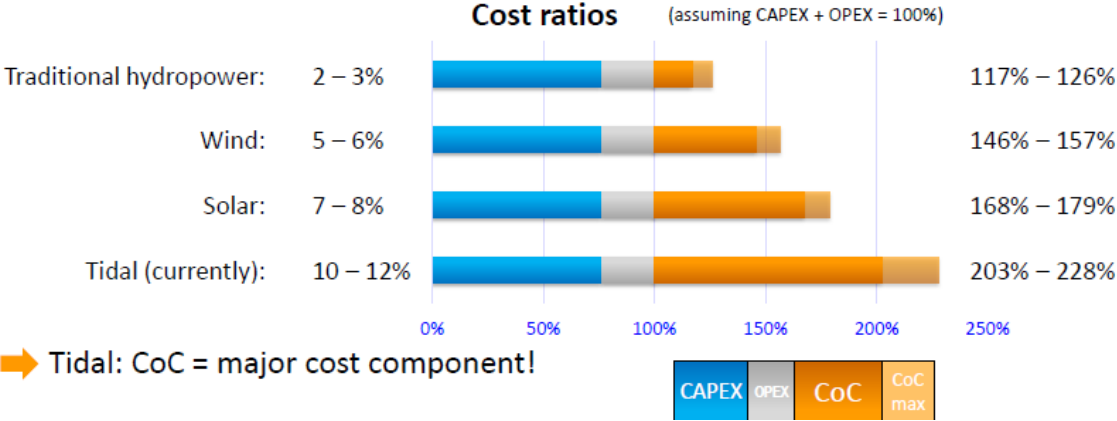
A 10% to 12% project IRR implies a total cost of capital over the lifetime of the project of 100% to 130% of capital expenditure and operational expenditure (CAPEX & OPEX)².

Several countries practice 0% rates for financial support to innovative projects. China for example financed much of its new onshore wind via zero-rate loans from its banking institutions.

² Based on a 20-year project, with 50% debt and 50% equity.



Figure 1: Comparison of project Internal Rate of Returns and respective costs of capital.



Source: Tocado International B.V.