



SolarPower Europe Input Paper on improving the Innovation Fund amidst the current geopolitical context

SolarPower Europe welcomes the planned increases and adjustments to the Innovation Fund through REPowerEU. However, budget increases and specific thematic windows should come with targeted improvements to solve the underlying issues within the Innovation Fund, which currently does not sufficiently support renewable energy infrastructure and manufacturing projects. In the

context of REPowerEU, it is critical for the EU to support energy independence through supply security to reduce fossil fuel consumption, and with technological security through manufacturing. This feedback is in context of the announcement of short and long-term changes to the Innovation Fund, starting with an augmented large-scale call in 2022.

SolarPower Europe would like to share the following general points with regards to **renewable energy infrastructure projects**:

- **The Innovation Fund should not only be based on GHG emissions removals.** Instead, it should support the achievement of the increased renewables target and the deployment of innovative solar technologies. To do so, a technology-specific call should be introduced, or a share of the Fund should be earmarked for renewable energy technologies. The deployment of renewables becomes even more urgent as the EU diverts from fossil fuel consumption, especially from Russia. Yet, the current selection criteria based on greenhouse gas emissions favour CCUS (Carbon Capture, Utilisation, and Storage) technologies, despite their high cost, inefficiency, and difficulty in scaling up. This reduces financing opportunities for renewables and creates uncertainty for renewable energy project developers. During the first large-scale call of the Innovation Fund, only one renewables manufacturing project won. In the second large-scale call, the number of renewable applications (projects and manufacturing) dropped tremendously while more than half of applications employed CCUS technology. The adjustments to the evaluation criteria proposed for the second large-scale call have been insufficient, reflecting the unfulfilled potential of the Innovation Fund. This is a clear indication that renewable energy projects should be prioritised.
- **Funding for CCUS should be limited to the end-uses where it is the most efficient solution in hard-to-abate sectors.** These technologies are presently

expensive and immature, with an unclear role in our future energy system. By contrast, solar will be Europe's main energy source by 2030. Carbon removal technology should be seen as the last resort, it will be unnecessary if we achieve total emissions mitigation in a renewable energy system. In this context, the Innovation Fund should avoid supporting carbon lock-in, which would have long-lasting impacts that hinder 2050 objectives.

- **The Innovation Fund should better support innovative technologies such as Floating PV and AgriPV** towards scale-up and market deployment as these technologies are essential to reach climate targets. These technologies can have an immediate impact on renewable energy deployment by using space efficiently, as well as decarbonising end-use sectors, such as the agricultural sector in the case of AgriPV. The Innovation Fund should equally support these technologies because they are beyond a first-of-a-kind deployment but are not yet fully commercialised due to their slightly higher costs and difficulty to reach adoption.

In addition, the GHG emissions reduction criteria in the case of integrated technologies should be calculated on the avoided emissions of the end-use sector to which they are integrated. For instance, AgriPV avoided GHG emissions should consider the avoided emissions not only in the electricity sector, but also in the agricultural uses.

- **Combined renewable energy projects, such as PV + storage projects, should equally be better**



incentivised by reflecting their innovative character and their contribution to GHG emissions removals. Currently, the GHG emissions reduction criteria is discriminatory toward solar and storage projects as well as electrification as it does not consider system GHG emissions, despite offering tangible efficiency benefits and being central to our future energy system. The GHG emissions reduction should be calculated at system level, taking into account the avoided curtailment of renewable electricity or the avoided production from alternative fossil flexibility resources.

In addition, the innovation level of combined projects should be evaluated not at the level of the technologies themselves, **but at the system level**, i.e., the new or innovative services and performances of the projects – such as new grid or ancillary services – which will incentivise the increased penetration of renewable energies in the grid. **Such services are still innovative in Europe, compared to other countries such as Australia or the US where they are being increasingly performed.** It is therefore critical that the innovative character of such services is better acknowledged under the technological and commercial state-of-the-art criteria, for instance by considering the existence of such services in a given country.

SolarPower Europe would like to share the following points on Solar Manufacturing projects:

- **The application process is too complicated and takes too long.** Manufacturers could build a financed factory in the same amount of time that they spend preparing and waiting for the results of the Innovation Fund. For large-scale calls, applicants routinely spend hundreds of thousands of euros on consultants just to make sense of the process and to prepare an audit of the project. Furthermore, the success rate for the first large-scale call was less than 2%. This combination of high selectivity, and the perception that renewables are at a disadvantage, further discourages renewable projects with potential breakthrough technologies from applying, while favouring the largest companies with the most resources to commit to an application.
- **The bottom-end of the large-scale call eligibility of €7.5m CAPEX per project is too low** compared to the funding needed for ambitious manufacturing projects. A floor threshold closer to €60m would allow focusing on financing the most impactful projects. The large-scale PV manufacturing projects

that Europe needs will have much higher CAPEX (the TANGO Gigafactory project has a CAPEX over 100m). In parallel, the small-scale call offers more adapted processes, but the level of the support offered is not adequate to finance a manufacturing project on a breakthrough technology. In addition, some projects in the small-scale-call have the backing of larger companies, putting all other applicants, especially SMEs and industrial consortia stemming from research institutes or equipment manufacturers, at a disadvantage due to the extensive resources needed to apply.

SolarPower Europe therefore proposes to create a dedicated call or section within the Innovation Fund, for solar PV or renewable energy manufacturing projects, attached to a dedicated budget. This mimics other international policies, such as in the US or India, which both have a dedicated competition for renewable energy manufacturing projects. Such a budget should be integrated in a broader EU Strategic Action Plan to support the re-establishment of strategic solar PV manufacturing capacities in the EU by 2025. Such an action plan should ensure the right regulatory framework is in place to allow those projects to develop sustainably.



This dedicated call could introduce Contracts for Difference, similar to the Carbon Contracts for Difference established for industrial decarbonisation and to support the deployment of hydrogen. Such Contracts for Difference could compensate the difference between the market price of components and the production costs of components. This approach would provide manufacturers with visibility on the financing support and speed up investments. A similar approach has been taken in India and the US (see box below).

Examples of international Solar PV industrial policies

- **India** – New Production Linked Incentive scheme (total budget USD 610m mio) aiming at reaching 10 GW of domestic manufacturing capacity along the fully value chain. The government proposes a subsidy (Rs/Wp) on the sale cost of the module. The subsidy is allocated through a competitive bidding process (or tender) and is granted automatically during five years. The subsidy level depends on the performance of the module (module efficiency and module's temperature coefficient of Pmax) - between 2.25 and 3.75 Rps/Wp. The first tender results (summer 2021) gave 19 companies selected for a total of 19 GW of production.
 - **USA** – Build Back Better Act and the Solar Energy Manufacturing for America Act, adopted on 19th November 2021 by the House of Representatives and now on the table of the Senate. The proposal consists in creating a 30% tax credits for investments into advanced solar energy manufacturing or a USD 0.07/Wp production tax credit for sales of solar cells and modules. The total budget would be USD 110 billion budget for RES supply chain investments. Additionally, executive actions in June 2022 have mobilized funds for the Defense Production Act to support domestic solar manufacturing capabilities because of their strategic importance.
- **The cost calculation methodology should not penalise potential competitive and profitable manufacturing projects which still need public support to take off.** The current methodology reduces the support mechanism if projects expect to benefit from additional revenues. For example, in the “inputs” tab of the Excel sheet portion of the Innovation Fund application, a higher premium (row 14) lowers the total relevant cost (row 92), which in turn lowers the Innovation Fund support (row 96). The Innovation Fund must strike the right balance for the highest-impact projects to receive funding. For example, high premiums currently disqualify firms from public grant aid, while low premiums are unattractive for private (bank) investment. This cost calculation methodology should be adjusted to maximize long term investments that will provide sustained economic and job growth in Europe, such as renewables manufacturing.
 - **Projects integrated along the value chain, i.e., that include investment into manufacturing or purchasing of components and parts made in Europe should benefit from an additional bonus in the evaluation.** This premium would be critical to support an integrated industrial strategy.
 - **Awarded projects have too much exposure to risk.** The Innovation Fund should raise the share of the project costs covered from the current 60% closer to 100% to **further de-risk projects that are essential for the green transition.** The REPowerEU proposal for an amendment to the Delegated Act establishing the Innovation Fund to allow for covering 100% of the project costs in competitive bidding scenarios is a welcome development and should be fast-tracked to ensure a rapid impact, but the support provided through the regular calls for proposals should also increase the share of projects costs covered.
 - **The Innovation Fund should be compatible with the other national and European funding tools,** in order to cover the full amount of expenses. We would welcome further guidance from the European Commission in this regard.