

Input to Sustainable Finance Strategy

Public consultation closing 15 July: https://ec.europa.eu/info/consultations/finance-2020-sustainable-finance-strategy_en

Supportive regulatory framework for deployment

Investors in PV look for regulatory frameworks that are governed transparently and are long-lasting. This is the foundation on which they can assemble a business case. To unlock investment in the PV sector, governments should commit to explicit yearly PV installation targets.

Scenarios like [Solar Power Europe's April 2020 "100% Renewable Europe"](#) show that PV is cheap, getting cheaper and that the cumulative costs of building an energy system by 2050 that is 100% based on renewables (of which the lion's share will come from PV) are less than the cost of an energy system that still contains fossil fuels at that date. The regulations needed to deploy PV are not related to direct subsidies, but rather to permitting¹.

The 2020s will mark the start of PV electricity commonly being used to power cars and small vehicles and for heating and cooling, so PV's fortunes will increasingly depend on regulations in these sectors.

RAP has produced recommendations² for supporting the expansion of PV-for-heating. We agree with its assessment that electricity tariffs must reward flexibility and that subsidies for fossil fuel-based heating systems must be ended. We think in addition that the costs of making the grid fit for variable-output renewable energy generation should be shared equally between all generators.

Where to find investment, once satisfactory regulations are in place?

Answer: **from the private sector**, guided by the new classification scheme for investments provided for under the Regulation "[establishing a framework to facilitate sustainable investment](#)" (EU Sustainable investment Taxonomy regulation) and **from the public sector**, including at EU level from the Strategic Investment Facility.

The 'Taxonomy' should help initiatives like Gothenburg's '[Green Bond](#)', first issued in 2013 to finance eco-friendly district cooling and heating, become much more common. In the PV context, a green bond could be used to finance combinations of PV and heat pumps, in order to achieve lower long-term costs of heating than fossil-fuel based heating systems.

By 2050, Solar Power Europe says that "solar needs to be installed on every appropriate rooftop to enable all citizens to become active consumers". Thus a plentiful, easily accessible source of finance must be created that can help homeowners and other small consumers. Invest EU's considerable resources must cascade down to these actors by helping to subsidise retail market financial products, for example through expanding [PF4EE](#) and putting renewable energy from PV clearly in PF4EE's scope.

¹ [Joint letter by European renewable energy associations](#), May 2020; see also the '100% Renewable Europe' study's call for a Clean Energy Package Implementation Body to streamline administrative burdens

² [Heating without the hot air: Principles for smart heat electrification](#), March 2020

Next Generation EU adds a new mission to Invest EU, the Strategic Investment Facility. 31 bn EUR will be available, the EC proposes, for the “creation and development of strong and resilient value chains across the EU”, with the aim to increase the EU’s “autonomy”. Technologies for the low-carbon economy are in its scope, particularly advanced technologies.

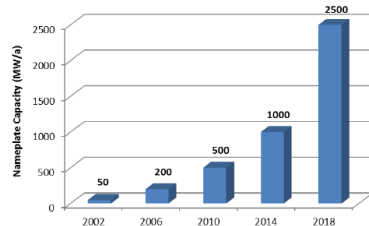
Our view is that financing the setting up or expansion of manufacturing production lines for PV in Europe falls squarely in the Strategic Investment Facility’s mission. Such plants, in line with previous ETIP-PV recommendations³, should manufacture wafers, cells and modules that are better than those already manufactured at GW scale in China. A 2019 study⁴ showed that the EU can be competitive here, achieving typical € / W_p world market prices if the plants are big enough. A map PV manufacturing plants is Figure 1 below. All are candidates for scaling up. More have been identified with Solar Power Europe’s [Solar Manufacturing Accelerator](#) initiative.

There should be no condition on companies that receive Strategic Investment Facility finance being part of an IPCEI.

Status Quo

Current European c-Si PV Manufacturing Landscape

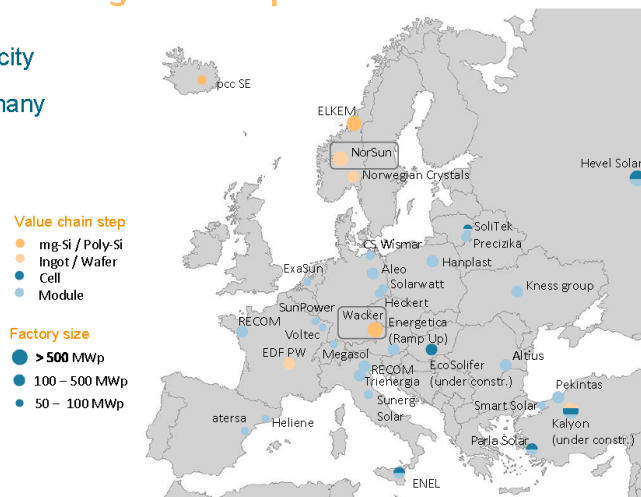
- Distribution of small plants < 500 MW/a capacity
- Silicon/wafer production in Scandinavia/Germany
- Almost no cell production capacity left
- Evolution of new cell fab size (Asia)¹



Actual plans in China:

GCL: 60GWp Module fab

Tongwei: 30GWp Cell & Module fab



¹Jörg Müller, Presentation Hanwha Q-Cells, PVCellTech 2019, Penang, Malaysia

Figure 1 Slide presented by Jutta Trube (VDMA) to Solar Power Europe webinar 16/4/2020. Current EU manufacturing capacity in four value chain steps from silicon to module, but it became apparent in SPE’s “Solar Manufacturing Accelerator High-Level Conference” on 08/7/2020 that at least some capacities are missing.

The effect of the Strategic Investment Facility window, or of Invest EU’s other instruments, should be to make financing available on better terms than those available from purely private-sector lenders. The EU needs to step in to provide cheaper loans for riskier projects.

³ [ETIP-PV Open Letter 2017](#) “Urgent Call for Action to Ensure a Sustainable Future for European PV Manufacturing

⁴ [New Photovoltaic Production Factories in Europe Are Possible](#), FhG-ISE for VDMA 2019

Better awareness of funding opportunities

ETIP-PV would like banks to be clearer about the kind of investment they would in principle support, and how they would support it.

More Project Development Assistance / Technical Assistance

The European Investment Advisory Hub, managed by the EIB, can assist a company in attracting financing at all stages in maturity of a project, from a preliminary pre-construction “project assessment” to financing packages suitable for projects in operation. We support the conclusions of an [EIB review](#)⁵ that identified energy infrastructure as one of sectors with the greatest need for TA. Much of the EU’s deployment of PV in this decade will be in relatively small projects (compared to a typical EIB-financed project), and many will be in countries that the review also says need the most help: Latvia, Lithuania, Poland, Slovakia, Hungary, Romania, Slovenia Croatia and Bulgaria. The EIAH also has an important mission in helping their governments create a good climate for investment with appropriate policies and incentive schemes.

Project Development Assistance needs to be easy to access for European Green Deal-supporting projects, including in PV.

Better provision of equity at EU level

Run by the EIB, European Investment Fund supports access to equity for Europe’s SMEs via intermediary financial institutions. PV companies need access to equity as well as debt. While the EIB has set itself the target of making 30% of its loan book pro-climate by 2025, the EIF only has the target for 10% of its equity stakes to be in climate-friendly businesses by 2020. PV companies need better access to the opportunities the EIF provides. The EIF should increase its climate-equity target to facilitate this.

A 2017 study for DG RTD⁶ concluded that the SET Plan needed an equity fund of 250-500 M EUR to complement an equivalent amount of debt financing available under EDP Innovfin. The new EIC Fund, which can be blended with EIF equity, could help to meet this demand, but a share of its capital should be directed at clean energy technology specifically, and not be allocated bottom-up.

⁵ [Market gap analysis for advisory services under the European Investment Advisory Hub \(EIAH\)](#), PWC 2017

⁶ [Innovative Financial Instruments for First-of-a-Kind, commercial-scale demonstration projects in the field of Energy](#), ICF 2017