



Kadri Simson,
EU Energy Commissioner

Brussels, 01 August 2023

CC: Energy Ministers of the EU27

It's not curtailment. It's waste.

Dear Commissioner Simson,

The solar sector is booming. Over 40 GW of solar was installed in the EU last year alone – nearly 50% more than what was installed in 2021. This is a good thing. Solar is supporting Europe's climate and energy security goals.

The International Energy Agency says that the EU needs at least 60 GW of new solar in 2023 to make up for the shortfall in Russian gas. The UN Intergovernmental Panel on Climate Change points to solar as one of the most feasible, quickest, and cost-effective tools to decarbonise. This winter in Europe, renewables already generated more electricity than fossil fuels, and saved the EU €12 billion in avoided gas costs since Russia invaded Ukraine. Solar, together with wind and other renewables, are shown to be able to supply consumers with all seasons.

Europe is beginning to enter the era of solar abundance. Across Europe, a number of TSOs have already adopted 100% or close to 100% renewable grid scenarios. This comes with the deployment of more and smarter grid infrastructure, as well as new technologies, in particular flexibility resources, that can adapt the import or export of electricity based on system needs.

However, while 2023 will likely deliver another record summer for solar generation, the European solar sector is compelled to express two key points of concern.

Due to increased level of solar curtailment, we risk continuing to waste solar energy in these summer months. Spring 2023 already brought reports of EU countries – notably Poland and Czechia – shutting down their solar PV power plants due to unexpectedly lower demand. In these circumstances, current grid management plans selected solar to be the first generation 'switched off', because solar is flexible, easy to manage, generation. Both countries rely heavily on coal, an inflexible and unsustainable source. Due to the reliance on so-called 'baseload' and a lack of clean system flexibility, highly-emitting coal is being burned – and clean, low-cost solar energy is being wasted.

In addition, unaddressed volatility of energy prices, and too frequent negative prices endanger investments in new solar PV assets. A higher volatility of prices, today exemplified through price spikes or negative prices, will be the new normal. They will be powerful signals to adapt, by incentivising more flexibility on the grid. But they also mean higher uncertainty on revenues, or even revenue losses, altogether slowing down much needed investments in renewables.

The 2018 Clean Energy Package offered many regulatory solutions to these challenges, but they haven't been consistently implemented across the EU. The energy and climate



crises require us to increase the deployment rates of solar to unprecedented levels. **More than ever, it is necessary to take action to accelerate solar growth and mitigate energy waste:**

- **Improve preparedness of the grid**, with grid development scenarios and anticipatory investments conducted with the industry. With an accelerated development pace of renewables, planning and anticipation on grid development needs are key. Including high renewable energy scenarios is critical to stress test the grid – and already a number of TSOs have worked on 100% renewable energy grid scenarios. In addition, with an accelerated growth of renewables, the grid cannot wait and needs to anticipate. Anticipatory investments, that must be strictly consulted with the stakeholders and in line with policy ambitions, need to be allowed already.
- **Take action to accelerate permitting and construction of national and cross-border grid infrastructure and engage in the digitalisation journey** of grid operators. Permitting large-scale grid infrastructure can take up to 7 years, and 10 years for cross-border projects. This can be reduced by smoothing the permitting process and prioritising strategic projects. Gaining from the experience on the permitting of renewables, action must be taken by administration to fasten the permitting of projects. At the same time, a strong political signal is needed to engage grid operators into their digitalisation journey – from data management to skills. Better use of weather data and historical data to predict and manage renewable production will be particularly critical.
- **Massively promote flexible resources** – on the demand side and the generation side. We need more storage capacities on the grid – battery and heat storage. But we also need more flexibility from demand. Let's not forget that nuclear countries also required flexibility from the demand side to cope with the lack of flexibility of nuclear production, by incentivising through Time of Use tariffs electricity consumption at night.

This requires:

Mapping the flexibility needs by 2025 and develop price signal frameworks to use the flexibility potential. Renewables will need a lot of flexibility: we must start quantifying the needs now. Based on this, appropriate action plans should be developed, including simple, non-market, price signals, such as Time of Use grid tariffs or self-consumption schemes.



Promote hybrid solar projects coupling solar with energy storage or coupling solar and another complementary renewable energy source, such as wind. When the sun doesn't shine, the wind blows – and when there's neither, there's storage! Policy-makers must remove all bottlenecks to deployment of those projects – starting with allowing project developers to hybridise the projects they own at their grid connection, without burdensome procedures. Solar and storage projects are still subject to double charges and not allowed to stack services (energy arbitrage and balancing services). Action needs to be taken now, including by allowing and promoting regulatory innovation.

Make the energy system flexibility-ready by accelerating the smart building roll-out, deploying clean flexibility technologies and promoting flexible grid connection agreements. Energy renovation rates must be accelerated to digitalise buildings and make them increasingly responsive to grid price signals. At the same time, equipping buildings with battery storage or smart heat pumps are key to increase the flexibility potential. Finally, promoting flexible grid connection agreements, whereby the consumer agrees to limit the import or export of electricity at the grid connection point, is an essential signal to promote flexibility at the source of consumption or generation.

- **Last but not least, ensure that the economic framework doesn't give the wrong signal to investors in the transition period.** As renewables are increasingly deployed on the grid, power prices become more volatile to attract flexibility – this is good. But this should not affect solar PV investments which need long-term stability and visibility. It is therefore necessary that Contracts for Difference still provide a stable remuneration even as negative price signals increase. Similarly, measures should be taken to limit renewable curtailment to acceptable levels (in Flanders (Belgium), solar curtailment is limited to 5% of the production). It is also critical to allow merchant solar assets to capture higher market revenues to compensate for increased periods of negative prices. In that regard, the prolongation of market revenue cap, or other capping method, risk overly skimming the extra profits of merchant solar assets that compensate for the low revenue periods. In parallel, the cost of negative pricing should be shared by all generators, including fossil generators, that contribute to creating the constraint in order to ensure the right economic signals for generation behaviour on the grid.

Yours sincerely,

17 European solar and renewable associations (AT, BE, BG, CH, CZ, DK, EL, ES, EU, FR, HR, IE, IT, NO, PL, PT)

