Lights, battery storage, action: Investing in the greenfield energy infrastructure needed for a net zero world

The energy transition requires both smarter production of clean energy as well as new, practical infrastructure to enable its use, explains Umberto Tamburrino, CEO of Sosteneo Infrastructure Partners, a company within the Generali Investments ecosystem of asset management firms, which specialises in greenfield investing.

On January 8th, 2021 Europe's transmission grid effectively split into two as it attempted to maintain regulation frequency of 50 Hz. The problem started in Croatia but blackouts were experienced at 200,000 homes and factories across Europe. Households in France were told to keep the lights off between 7am and 1pm.

The UK had experienced an even greater blackout eighteen months earlier when a major windfarm was shut down just as lightning struck a transmission cable for a gas-fired combined cycle plant. It is an irony lost on many that the rapid adoption of renewable energy is likely to cause not fewer but more of these disruptions to daily life. Yes, wind and solar are free at source. Yes, local wind farms and solar arrays reduce reliance on imported fossil fuel, therefore boosting energy security. But, as Umberto Tamburrino, CEO of Sosteneo Infrastructure Partners – a company within the Generali Investments ecosystem of asset management firms – points out, they also give operators of electricity networks an increasing headache of how to balance power.

"You need to control variability in the grid," he says. That variability rises as we rely more and more on intermittent sources such as wind and solar. Germany's output from controllable power plants (coal and nuclear) is likely to fall by 20% by 2035, for example. That reduction is essential to mitigate climate change but what replaces fossil fuels in ensuring baseload supply?

As a private equity infrastructure firm, Sosteneo is answering this question by investing in battery storage in its new Sosteneo Energy Transition Sub-fund 1, which has been cornerstoned by Generali Group and is open to third-party investors. The firm specialises in greenfield equity infrastructure investment projects related to the energy transition. They focus on infrastructure that produces clean energy, such as solar PV and wind, as well as infrastructure that enables clean energy use, such as battery storage and networks.

"Read the signals carefully," warns Tamburrino. "Batteries are the most effective way to control variability. Without battery storage, you cannot have an energy transition."

Much of Sosteneo's experience in batteries comes from Down Under, the global market leader in batter storage systems. Though not a legal requirement, every new solar operation in Australia needs to come with storage attached, explains Tamburrino. Sosteneo's senior management has not only managed and financed various clean energy companies in Australia; Ivor Frischknecht, its CIO for Asia-Pacific, also headed ARENA, the national Renewable Energy Agency.

Ups and downs

Power supply is not the only fluctuating feature of energy markets right now. Prices in Europe have been extremely volatile for a number of reasons, beginning with the economic recovery post-COVID and then the war in Ukraine. "This has awakened in people a sense of the practical implications to becoming energy independent," says Tamburrino.

Sosteneo has two types of buyer for the renewable energy its assets generate. The first are utilities like Shell, which trade in energy and share some of the upside with the supplier. The second are big corporates such as Amazon that want to avoid price volatility and reduce their carbon footprint. "One of the lessons of 2022 for these companies," says Tamburrino, "is that electricity prices might be high but they could go even higher." And so, cost certainty becomes strongly appealing.

Power Purchasing Agreements bring that certainty for both seller and buyer, but with an additional bonus for the corporate. "They have ESG targets and using renewable energy helps to achieve them," explains Tamburrino.

As Sosteneo's policy is to concentrate on greenfield projects, they look for full or controlling ownership, and overseeing but not owning construction risk. With this strategy, the additionality of every new built asset is clear.[1] The strategy also leverages the firm's technical capabilities, where a team with less experience in energy might stick to projects already up and running. "I am very confident we can deliver what we promise investors," says Tamburrino. "This is my fourth economic cycle. The more we progress in our careers, the fewer mistakes we make."

One of the essentials of investing is acknowledging what you do not know. Given this, diversification is the way to go, with geothermal and hydrogen projects in their portfolio. Tamburrino is clear, however, that the economics need to stack up. With a solid target net IRR of 10%,[2] this is not a venture capital strategy. And on technology diversification, he is cautious on wind power. Not because it is unproven but because of people's opposition to having turbines near their homes. "This means you have to look offshore, which is expensive right now," he says.

It is worth noting that Sosteneo is considering wind farm investments, and earlier in his career, Tamburrino worked on financing the UK's first major offshore array at Thanet. Nevertheless, he notes that in the last twelve years, the cost of solar farms has fallen by 90% while the efficacy of the technology has risen considerably . Wind turbines have gotten bigger and therefore able to capture more wind at a lower cost, but have not experienced the same kind of radical efficiency improvement, being a more mature technology.

On geographical opportunities, the fund seeks global diversification across OECD Europe and the Asia Pacific, a task aided by dual locations in Milan and Sydney. Tamburrino explains that they have a large pipeline of opportunities, having closed three projects so far, one big battery project in the UK, and two PV plants in Italy. "With the battery project recently closed, first of all, we consider the strong fundamentals in the UK," explains Tamburrino. "As an island, the interconnections with Europe are limited and there is a need to manage a growing penetration of intermittent wind energy"

Turning to the Italian solar PV plants, there are a number of drivers, Tamburrino explains. First is the need to make the south of Italy more economically competitive. Secondly is the transformational EU capital still available for Italy. Almost €200bn is on offer as part of the post-pandemic recovery fund, but reportedly less than half of this had found a home by mid-March this year. Tamburrino believes this is a "one-off opportunity for Italy to make long-term changes to the shape of the country".

FOOTNOTES:

1 There can be no assurance that the investment objective will be achieved or that there will be a return on capital.

2 This is an internal expected target return and not a promise on performance as this target return is not guaranteed. The investment objective may not be reached, and you may not get back your initial investment amount. For additional information on the assumptions and different scenarios taken, please refer to the AIFM.

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