

Energy transition: the time has come

The pandemic crisis may energise renewable energy infrastructure



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With the world economies in restart mode, will there be a reset for renewable energy?

Renewable energy is one of the fastest-growing segments within the infrastructure market, as clean energy production represents both a compelling investment opportunity and a natural choice of asset allocation in the move towards a low-carbon economy.

Yet, while large sums of money are seeking tangible and long-term investment opportunities, only a tiny portion of this money is channelled into meeting the massive financing needs of low-carbon energy transition.

Months of low emissions during the pandemic have shown us all the benefits of clean air in major population centres. The challenge now is to seize the moment and reset our energy usage for the benefit and prosperity of all.

Why renewables as an investment?

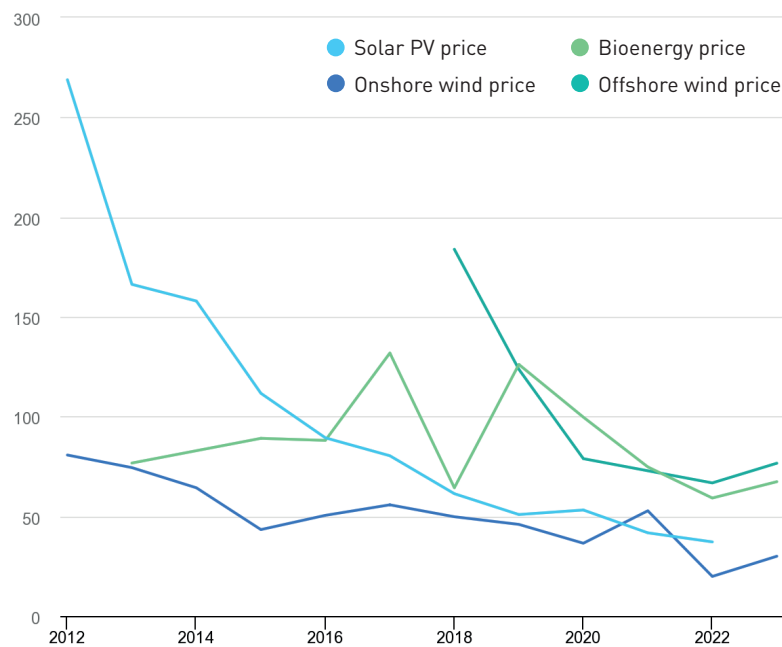
Markets and societies need a substitute to fossil fuels, as oil and gas are not compatible with broad climate change objectives. Without efficient replacements, the world risks unknown consequences to life quality.

Across Europe, where the renewables industry is most advanced, outdated energy facilities are being phased out and replaced by more efficient facilities in which renewable energy is playing a bigger part. As the industry develops and becomes self-sustaining, state subsidies are being phased out and substituted with market mechanisms driven by supply and demand.

Construction costs of solar PV plants, for example, are now 90% less than a decade ago. In wind technology, increased competition and improved technologies have led to longer blades and taller turbines, also bringing down electricity production costs.

As well as the economic and climate change rationale, a further driver of renewables is strong political support, particularly in the European Union. The EU has set a target for renewable energy penetration to reach 20% of total energy consumption in 2020, rising to 27% in 2030. Renewables already represent over 30% of electricity production in the EU, up from 15% in 2005.

Average auction price by project commissioning date, 2012-2022



Source: Renewables 2017 main case forecasts, IEA. Renewable Capacity Statistics 2017. IRENA. Croatia estimate based on UE 2020 target. Investment needs estimate based in IEA capacity forecasts. Higher/lower cases assuming a 10-20% reduction in prices to 2022.

Increasing need for institutional investment

The market for renewable energy is maturing, moving from small entrepreneurial projects to large-scale corporate enterprises. Major financial investors have now entered the market, looking for yield amid the low-interest environment. Renewable energy is now a source of strong performance and a strong diversification tool for institutional investors.

But even for savvy institutional investors, becoming directly part of the renewables story is not straightforward. Building a wind farm or energy storage facilities requires technical and financial know-how and experience, as well as project management skills. With investment sizes at between \$5m and \$50m a project, corraling large internal resources for single projects is not viable and requires external expertise.

Mirova attracts capital from large numbers of investors (over €1.3B raised and deployed to date) to make equity and mezzanine climate infrastructure investments across Europe. It mainly invests in mature technologies (solar photovoltaic, wind, hydro) at ready-to-build or operating stages, ensuring that capital can be deployed rapidly and offer payback timeframes that are typically shorter than for investors in many other infrastructure assets.

While most investments to date have been in renewable energy generation infrastructure, Mirova increasingly invests in energy storage and electric mobility. In other words, it has spread its remit to energy transition.

Most projects involve a long-term partnership, such as joint ventures with industrial companies and utilities, to ensure alignment of interests. The assets that are created through these partnerships have a lifetime of about 25 years, but Mirova seeks to sell them within 7-10 years to return capital and profits to investors. In the meantime, investors receive revenues from the ongoing operation of the asset.

A package of skills

To succeed in this complex and increasingly competitive sector takes a range of financial and technical skills, plus a large industrial network to draw from, to both source and implement deals.

Every member of Mirova's 15-strong renewable energy team has a background in renewable energy, as well as core skills in either project financing, deal sourcing and structuring, project development or asset management. The investment team is supported by a dedicated risk, legal, compliance and ESG research team to ensure the quality and sustainability of its investment and risk management processes.

These skills and experience lead to good industrial relationships, and good industrial relationships lead to strong pipelines of deals, through referrals and repeat transactions. The development of trust with industrial partners over a number of years allows Mirova to take on projects others may consider too complex or too risky.

With the support of partners, the risks are

better understood and managed, and greater rewards are available to all parties.

J-curve mitigation

Mirova's strategy of investing in greenfield projects which are quickly operational, or directly in brownfield projects, enables rapid value enhancement facilitating early repayment to investors and mitigates the J-curve effect.

Overall, the strategy aims to deliver returns of 8%-9% net to investors over the 10-15 year lifetime of a fund, with a 5% annualized cash yield. These returns and timeframes suit the majority of insurers, endowments, wealth funds and pension funds. For insurers, the all-important cost of capital under the EU's Solvency II regime is extremely low, with an SCR of about 15% (using a look through analysis). This compares to an SCR of 49% for private equity and 30% for infrastructure.

A world of opportunities

Core investments – solar and wind farms – still provide good returns, but investment performance is coming under pressure in Western European renewable energy markets, which are maturing. So a differentiated strategy is required to sustain performance. We see particular upside in five key areas:

- Utilities, which rely on specialised investors to help them build projects and leverage their balance sheets.
- Early-stage projects. Experienced operators can assess the likelihood of success and avoid early-stage projects which have low chances of success.
- Energy storage. The energy storage market over 2016-2030 is predicted (by Bloomberg New Energy Finance) to mirror the photovoltaic solar trajectory over the 2000-2015 period, which doubled six times in 15 years.
- Advanced mobility. The transformation of the transportation industry, shifting away from fossil fuel is a major growth.
- European countries outside Western Europe, such as Poland, Croatia, where some of Mirova's industrial partners already operate.

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