

## 1.5 degrees depends on a scalable renewables industry

COP26 saw several nations increase their political pledges to reduce national carbon emissions and commit to highly ambitious timelines. Many have proudly declared that renewable energy will be a key driver of their success along this journey. According to the IEA, global renewable energy capacity will have to expand by three times its current size by 2030 to keep global emissions aligned with the Paris Agreement. This heightened spotlight on renewables brings forward a key challenge, can the renewables industry build scale quickly enough to meet the growing demand for decarbonized energy?

The answer encompasses three key industrial components: technology, value, and growth. A scalable and financially sustainable industry must thrive across all three.

The technologies required to support a decarbonized energy system already exist and have done for some time. Innovation will of course continue to drive scalability and efficiency - a single wind turbine today for example could power around 20, 000 homes, compared to just 40 for a model launched forty years ago – but overall, wind, solar PV, battery storage, renewable hydrogen are all mature enough to deploy and can quickly grow with the right level of support from policy frameworks.

Supportive policies are critical to build scale for these technologies. At present, a key obstacle for renewables is the consistent pressure to drive down costs. In an effort to foster cost-efficiency in the deployment of renewable energy, policy makers have turned to auctions, creating a race to the bottom on prices for developers and suppliers. Consequently, the levelized cost of renewables is on par or below the cost of fossil-based power generation in several markets. The upside? This trend has accelerated the trajectory of renewables from a heavily subsidized power source, valued largely for their green credentials, to a mainstream, cost-competitive player on par with traditional power sources. And while this trend is a hugely positive achievement for maturing sustainable energy pathways, the downside is that it's not a scalable model for meeting global climate goals.

Technology developers across the renewable value chain must be able to capture enough value to reinvest back into building scale. This is critical to ensure renewables can grow as an industry and grow quickly enough to remain in line with increasing net-zero targets. Policy makers can support this growth by shifting their focus from costs to value. A rapidly growing, fully industrialized renewables industry holds enormous potential to yield a high social and economic return on investment. In Europe, one installed wind turbine has the potential to drive 10 million euros of economic activity. Renewables are more work intensive than fossil fuels, capable of generating three times as many jobs for the same amount of investment. And overall, green energy investment could increase global GDP by 4 percent by 2030.

Job creation, economic activity, reduction of air pollution and technological advancement are all value drivers that stretch far beyond reducing carbon emissions, and they must be factored into the way policy makers choose to deploy renewables going forward. If auction criteria considered indicators that nurture societal return on investment, suppliers can escape the race to bottom on costs, and progress with projects based on the sustainable economic value they can bring to local economies. While this formula must be scoped to align with the economic needs of local societies, it will be the key to unlocking sustainable business growth for the renewables industry and scaling up decarbonized energy systems quickly.

Rapid scale is the only way forward if we are to meet the looming 2030 deadline. To limit global warming, we must understand the true value of sustainable energy, not just its cost.

[Read more about scaling up renewables.](#)