

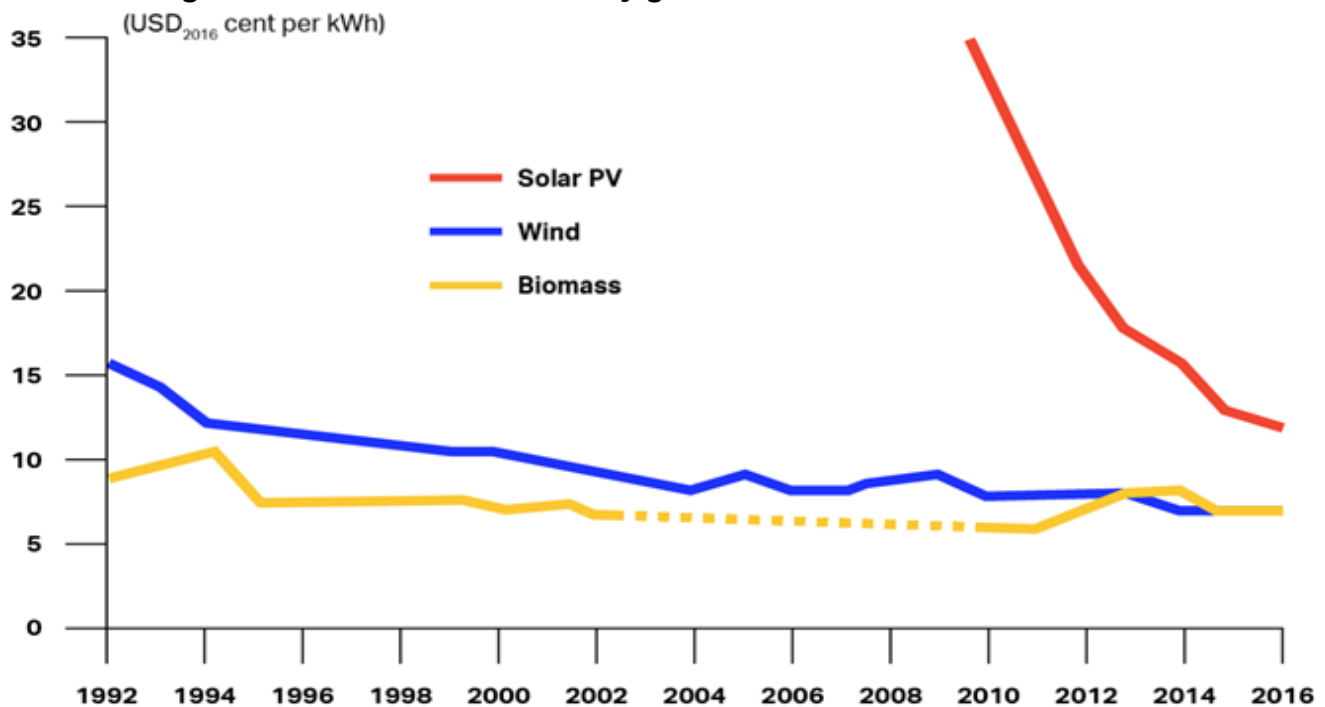


Chart of the Week

2 August 2024

Growth in renewable energy offers insights for air transport

Global average levelized cost of electricity generation



Source: Steffen, B. et al. (2018), "Opening new markets for clean energy: The role of project developers in the global diffusion of renewable energy technologies", Business and Politics, 20(4), pp. 553–587. doi:10.1017/bap.2018.17. Note: For 2010–2017 based on IRENA data; wind data for earlier years based on information from BNEF. biomass data from earlier years refers to wooden biomass from Sweden, as provided by Junginger et al. 2006, Energy Policy 34, 4024–4041.

- How policy makers created renewable energy markets in the past provides [insights](#) for aviation's energy transition and helps inform the efforts to develop the still only nascent sustainable aviation fuel (SAF) market.
- The renewable energy sector has seen unprecedented growth over the past 30 years. Strategic technology-push and demand-pull policies accelerated its development, driving innovation, investment, cost reduction, and infrastructure expansion. As a result, solar and wind have evolved from niche energy sources to more mainstream sustainable alternatives to fossil fuels.
- Strong government policy action enabled the new energy markets to develop and with the associated scale came the reduction in production costs necessary for widespread adoption. The cost of solar energy plummeted, with the decline in wind energy costs having been more gradual, and those of biomass less discernable. This highlights the extent to which global deployment can drive technological learning, in turn leading to widespread spillover effects.
- However, more complex and design-intensive technologies, such as wind farms and biomass, typically require a higher proportion of locally adapted or sourced components. This can translate into steeper learning curves, and correspondingly, more muted cost reductions. Sector-specific considerations and local context will always matter in policy design. While policy needs to adapt to these, the lesson learned from creating renewable energy markets in the past is most encouragingly the fact that it can be done.

Terms and Conditions for the use of this IATA Economics Report and its contents can be found [here](#):
By using this IATA Economics Report and its contents in any manner, you agree that the IATA Economics Report Terms and Conditions apply to you and agree to abide by them. If you do not accept these Terms and Conditions, do not use this report.

IATA Sustainability & Economics
economics@iata.org