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Re-considering the economics of photovoltaic power

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Abstract

This paper briefly considers the recent dramatic reductions in the underlying costs and market prices of solar photovoltaic (PV) systems, and their implications for decision-makers. In many cases, current PV costs and the associated market and technological shifts witnessed in the industry have not been fully noted by decision-makers. The perception persists that PV is prohibitively expensive, and still has not reached *â€˜competitivenessâ€™*TM. The authors find that the commonly used analytical comparators for PV *vis a vis* other power generation options may add further confusion. In order to help dispel existing misconceptions, some level of transparency is provided on the assumptions, inputs and parameters in calculations relating to the economics of PV. The paper is aimed at informing policy makers, utility decision-makers, investors and advisory services, in particular in high-growth developing countries, as they weigh the suite of power generation options available to them.

Highlights

â–° We present academic and industry literature on recent dramatic PV cost reductions.
â–° We provide transparency on assumptions and parameters in PV-related calculations.
â–° Commonly used estimates for PV power's competitiveness are often misleading. â–°
Recent reductions in PV prices are likely to be sustainable. â–° The shift in prices of PV
technology carries major implications for decision makers.



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Keywords

Photovoltaics; Energy economics; Energy policy

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