



Solar energy use is growing fast as production costs plunge

Solar energy is growing fast as total capacity worldwide surges with the decline of solar-panel prices. It's cheap and it works.

How to further reduce the price of solar panels has become an important topic as solar electricity's share of the overall energy supply grows globally. Several studies have focused on manufacturing and technological developments as the main reasons behind the most recent drop in global solar-panel prices.

But a more recent study done for the Asian Development Bank Institute says that monetary variables, oil prices, and demand for solar panels due to environmental concerns also determine solar-panel prices.

Let's hear from one of the study's authors, Farhad Taghizadeh-Hesary:

Renewables accounted for almost two-thirds of net new power capacity around the world in 2016, with almost 165 gigawatts coming online, while solar electricity installed capacity more than tripled from 2012 to 2017, as the Peoples' Republic of China and Japan competed to drive prices lower to a few cents per kilowatt hour. Solar electricity is now as cheap or even cheaper than gas and coal power.

Research and development expenditure on solar energy by the public and private sectors has been growing globally, totalling \$3.6 billion in 2016.

Taghizadeh-Hesary explains the study's recommendation:

Government must increase funding to renewable-energy industries because they are high-tech, and capital cost has a significant effect on technology price. Providing low-interest finance will accelerate the growth of green technology. Top solar-panel-producing countries such as the Republic of Korea and Malaysia have started green-technology financing, which lets

manufacturers of renewable-energy equipment to borrow money at a low interest rate, especially for R&D.

In the United States, third-party financing has strengthened, and the lower capital costs driven by these parties have encouraged the installation of solar systems.

Lowering interest rates for renewable-energy loans will further reduce prices of solar panels and increase solar-energy installation growth. Increasing R&D expenditure will expand the installation of renewable energies, but it's important to target the right sector.

This episode was based on [research](#) done for the Asian Development Bank Institute by Farhad Taghizadeh-Hesary, assistant professor of economics at Waseda University, Tokyo; Naoyuki Yoshino, dean of ADBI; and Yugo Inagaki, an alumnus of Keio University.

Listen to podcast

- <https://soundcloud.com/adbinstitute/solar-energy-use-growing-fast-production-costs-plunge/>

Read the working paper

- <https://www.adb.org/publications/empirical-analysis-factors-influencing-price-solar-modules>

Know more about ADBI's work

- <https://bit.ly/2MbErO1>
- <https://bit.ly/2MIDL7P>