

ADD IT UP: THE COST OF RENEWABLE ENERGY

Setting aside concerns for the environment, investing in renewable energy sources is a popular decision for a lot of businesses and governments around the world. What's the outlook for renewable energy and which methods have the lowest costs?

TURNING TO RENEWABLES



69%

Projected growth in renewable electricity generation in the U.S. between 2012 and 2040⁽¹⁾



25%

Average annual growth rate over past five years in global wind power capacity⁽²⁾



50%

Average annual growth rate over past five years in solar photovoltaic capacity⁽³⁾



6 IN 10

Fortune 100 and Global 100 companies that have set greenhouse gas-reduction goals⁽⁴⁾

\$260 BILLION

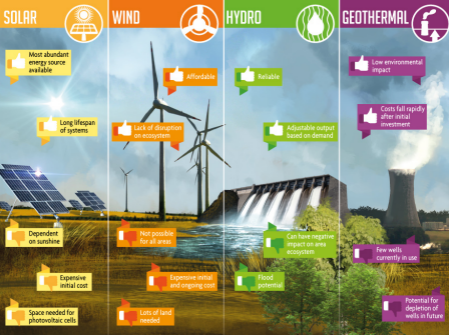
Global renewable energy investments in 2011⁽⁵⁾



BREAKING DOWN THE OPTIONS

Missing text "Here's a look at some of the most popular renewable energy sources and their pros and cons."⁽⁶⁾

PROS CONS



SO WHAT'S THE BOTTOM LINE?

Now that we've seen what each method is all about and what the industry overall is doing, how do we know which method is the best from a cost standpoint? In this analysis, we'll look at expected levelized cost of electricity, operations and maintenance and typical lifespan for each of the four methods.

LEVELIZED COST⁽⁷⁾

INCLUDES:

ESTIMATED LEVELIZED COST OF ELECTRICITY, \$/MWH, FOR NEW PLANTS COMING ONLINE IN 2019



MAINTENANCE COST⁽⁸⁾

INCLUDES:

ESTIMATED OPERATIONS AND MAINTENANCE COST, \$/MWH, FOR NEW PLANTS COMING ONLINE IN 2019



LIFESPAN

AVERAGE EXPECTED LENGTH OF USABILITY FOR PLANT AND/OR EQUIPMENT⁽⁹⁻¹¹⁾



THE WINNER

Hydroelectric plants represent the most cost-effective to burning fossil fuels. With long lifespans and low maintenance costs, hydro is the fuel of choice in many places in the world.



99%

of Norway's electricity comes from hydro.⁽¹²⁾



75%

of its power from hydro.⁽¹³⁾



9%

of the power in the U.S. is generated by hydro.⁽¹⁴⁾



SOURCES

1. <http://www.eia.gov> 2. <http://www.eia.org> 3. <http://www.worldwildlife.org> 4. <http://www.energy4me.org> 5. <http://www.renewablesfirst.co.uk> 6. <http://www.nrel.gov> 7. <http://www.statisticbrain.com>

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