

the time.² Compare that with a typical mid-sized combined cycle natural gas plant using 0.03 acres per megawatt!³ Powering New York City would take a wind farm some 1,600 square miles in size, or about half of Yellowstone National Park.⁴ So in many cases, the responsible use of fossil fuels makes a great deal of sense for the environment.

Another downside to renewables is the lack of reliability. No one wants intermittent power or a fuel source that shuts on and off. The sun doesn't always shine and the wind doesn't always blow. How would hospitals operate non-stop without a steady source of power? How would factories run without continuous fuel?

Unreliable energy is worth less, considerably less, than reliable energy. Imagine the difference between a car that works reliably versus one that works only a third of the time. Yet, comparisons of the relative price of renewables and fossil fuels – meant to suggest they cost roughly the same – do not take this into account. Intermittent energy isn't convenient or practical, and our expectation and experience of reliable energy is deeply rooted – and aspired to in societies across the globe.

One example of this is when a solar-and-battery microgrid was built for a rural village in India that had been waiting for decades to get access to central grid power. The villagers were disappointed to find that solar power was both expensive and unable to provide enough power for the village's needs. When the former chief minister of Bihar State visited to inaugurate the solar microgrid, villagers lined up to protest, chanting: "We want real electricity, not fake electricity!" Reliable, continuous energy is clearly a necessity and not a luxury for developing nations.

Another downside to renewables is the lack of reliability. No one wants intermittent power or a fuel source that shuts on and off.

² http://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_6_07_b

³ <http://www.ngsa.org/comparison-of-fuels-used-to-generate-electricity-in-the-united-states-leidos-inc-2016/>

⁴ <https://engineering.mit.edu/engage/ask-an-engineer/how-many-wind-turbines-would-it-take-to-power-all-of-new-york-city/>