Energy storage gives renewables a jump-start

By David Suzuki

20 February 2016

Dr David Suzuki talking on the urgent need to act on climate. (Image via @MikeHudema)

Given the speed at which technology and inventions are advancing, it's a no-brainer to see that the barriers to a clean energy shift are more political and psychological than technological, argues Dr David Suzuki.

REMOTE AUSTRALIAN communities often use diesel generators for power. They're expensive to run and emit pollution and greenhouse gases. Even people who don't rely entirely on generators use Australia's power grid, which is mostly fuelled by polluting, climate-altering coal.

Now, one company is showing that supplying Australia's energy needn't be expensive or polluting.

AllGrid Energy produces 10 kilowatt-hour solar-power batteries that take advantage of Australia's abundant sunlight and growing demand for solar panels. Their lead-acid gel battery is less expensive than Tesla's lithium Powerwall, also available in Australia.

Many AllGrid systems are sold in indigenous communities, providing affordable energy independence.

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>
> — Dame Sassalot (@sassysissi) January 21, 2016

It's an exciting development, because renewable energy clears a lot of the clean-energy technologies' nature. One reason Tesla's that they're both generating and renewable sources. Many are concerned about energy storage, because wind blow, and solar cells cover, wind speed can't rely on coal, oil, gas and nuclear power – and hydroelectricity.

But batteries and other energy storage methods, along with improvements in competitive with power – and hydroelectricity.

Rapid storage-technology advances are making it possible to replace old energy sources with new, more reliable, cheaper, cleaner, more flexible and more secure energy systems without sacrificing reliability. Electricity regulators, utilities and energy companies are starting to test a number of storage systems, including batteries, pumped hydro and thermal storage. Ontario is planning to add 50 megawatts of electrical storage capacity from renewable sources by 2025.

This spring, grid scientists from the National Renewable Energy Laboratory and the University of Colorado

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reliability, efficiency and affordability.

Listen up, Fossil Fools: renewables have delivered, they've delivered, they've delivered. Renewable energy has become cheaper than coal, gas and nuclear power, which could deliver cheaper power to consumers.

Harvard University researchers have been working on a flow battery that uses abundant, inexpensive organic compounds rather than expensive metals.

Renewable energy with storage has a number of advantages over fossil fuels. It can be deployed more quickly and efficiently, and it's less prone to disruption, because power sources are distributed over a large area, so if one part is knocked out by a storm, for example, other parts keep the system running.

Many fossil fuel-based power systems require large bodies of water for cooling and so can be affected by drought, and nuclear power systems are expensive and take a long time to build.

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— AustralianSolarQuote (@AusSolarQuotes) January 18, 2016

fracking and other extraction methods, are facing competition from clean energy.

And fossil fuels will eventually run out, becoming increasingly expensive, difficult to obtain, and ridden with conflict as scarcity grows.