

PLANETARY HEALTH WEEKLY

BRINGING YOU CURRENT NEWS ON GLOBAL HEALTH & ECOLOGICAL WELLNESS

June 9, 2016

SPECIAL ISSUE: SOLAR/RENEWALBE ENERGY

Volume 2, Issue 23

Look What's Cooking in the World of Renewable Energy

The future of solar power is cooking at more than 2,500 °F. Behind closed doors and downturned blinds, custom-built ovens with ambitious names like "Fearless" and "Intrepid" are helping to perfect a new technique of making silicon wafers, the workhorse of today's solar panels. If all goes well, the new method could cut the cost of solar power by more than 20% in the next few years. This humble wafer will allow solar to be as cheap as coal.

Read More on ensia

ALSO IN THIS ISSUE:

A New Way to Store Solar Heat
The Number of Electric Cars on Roads
Portugal Runs On Renewable Energy

Where Is the Solar Blooming in America? 3 Nissan Leaf Drivers to Sell Spare Electricity \$7 Billion For Ontario's Climate Change Plan

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One Million Points of Light: Top Five Reasons We Love Solar

Consider this fact: it took the US about 40 years to get to 1 million solar installations, but at the rate the industry is going, it'll take just another two years to reach 2 million. According to a report by GTM Research, the solar market in the US is projected to grow 119 percent in 2016 alone – adding more than double the amount of capacity installed last year.

Read More on The Climate Reality Project



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A New Way to Store Solar Heat

Imagine if your clothing could, on demand, release just enough heat to keep you warm and cozy, allowing you to dial back on your thermostat settings and stay comfortable in a cooler room. Or, picture a car windshield that stores the sun's energy and then releases it as a burst of heat to melt away a layer of ice.

According to a team of researchers at MIT, both scenarios may be possible before long, thanks to a new material that can store solar energy during the day and release it later as heat, whenever it's needed. This transparent polymer film could be applied to many different surfaces, such as window glass or clothing. The key is a molecule that can remain stable in either of two different configurations.

Read More on MIT News

There Are Now More Than One Million Electric Cars On The World's Roads

In 2015, the number of electric cars on the road globally passed the one million threshold for the first time.

The rapid growth of the industry means that it is now the only technology sector on track to meet the International Energy Agency's (IEA) 2C scenario. The IEA's 2C scenario (2DS) sets out a pathway that would lead to a 50% chance of limiting global average temperature rise since the preindustrial era to 2C. This means cutting CO2 emissions almost 60% by 2050 compared to 2013 levels.





Portugal Runs For Four Days Straight on Renewable Energy Alone

Portugal kept its lights on with renewable energy alone for four consecutive days last week in a clean energy milestone. Electricity consumption in the country was fully covered by solar, wind and hydro power in an extraordinary 107-hour run that lasted from 6.45am on Saturday 7 May until 5.45pm the following Wednesday. News of the zero emissions landmark comes just days after Germany announced that clean energy had powered almost all its electricity needs on Sunday 15 May, with power prices turning negative at several times in the day – effectively paying consumers to use it.

Read More on The Guardian

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Where Is Solar Blooming in America?

Talk about an energy revolution. In 2007, there were no utility-scale solar power plants in the US. Today, there are hundreds. It's not just what this growth means for cutting carbon pollution and fighting climate change that's so exciting – it's also what it means for the economy. Solar power is creating jobs almost 12 times faster than the overall US economy. Last year, the US solar workforce grew by more than 20 percent for the third year in a row. Better for the environment and a dynamic tool for economic growth and job creation, solar power shines in plenty of ways. That's why many states are investing in it – and seeing the results.

Discover the top Ten solar states!

Read More on The Climate Reality Project

British Nissan Leaf Drivers Will be Able to Sell Spare Electricity

In the near future, Nissan electric vehicle (EV) owners in the United Kingdom could use the electricity stored in their vehicles as an extra source of income. Why you'd want to sell the power from your EV's batteries? Unlike gasoline, which stays at a relatively constant price during a 24-hour period, the cost of electricity fluctuates. It's why so many EVs have an option to charge during "off-peak" hours, when the grid is under less strain and juice is cheaper.

Read More on Autolog



Ontario to Spend \$7 Billion on Sweeping Climate Change Plan

Ontario will slash its carbon footprint with a new \$7-billion action plan. After fine tuning at the cabinet level, complete details are expected to be released to the public in June. "We are at the cusp of a once-in-a-lifetime transformation," says the plan, signed by Premier Kathleen Wynne. "It's a transformation of how we look at our planet and the impact we have on it. It's a transformation that will forever change how we live, work, play and move about." With this plan, Ontario will begin to phase out gas heating in homes, provide incentives to switch to electric and geothermal heat sources, encourage electric vehicles, and much more.

Read More on Alaska Highway News

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Ryerson Students Win US DOE 'Race To Zero' Student Design Competition 2016

Eastern Pine is a multi-family residential building designed by a multi-disciplinary team consisting of architecture, building science, and engineering students from Ryerson University. It was the winner of the "Multi-Family" category of the US Department of Energy (DOE) Student Design Competition in 2016. Housing demands have been shifting in Toronto. People are now choosing compact multi-unit housing over single-family, detached houses for the proximity to cultural and recreational amenities. This demand shift was a key factor in the design of Eastern Pine and can be used as a precedent for future building in the city.

Read More on ryerson.ca

Europe's Largest Floating Solar Farm Powers Up

More than 23,000 solar photovoltaic panels floating on the surface of the Queen Elizabeth II reservoir outside of London are powered up to supply energy to a nearby water treatment plant. Built from 23,046 solar panel modules, the array is expected to generate 5.8 million kilowatt hours in its first year, enough to power 1,800 homes. The solar array will not connect to the National Grid but after testing is complete it will be attached to the private electrical grid at the water plant where it is expected to provide 20% of the plant's electricity needs.



Watch The Video on ScienceDaily



SPOTLIGHT ON INDIGENOUS HEALTH: T'Sou-ke First Nation: A Leader in the Innovative Use of Renewable Energy in Canada

The T'Sou-ke First Nation Aboriginal community that lives on the southern tip of Vancouver Island is speeding the process of the adoption of renewable energy and providing an example for us all to follow. By 2012 this community built a 440-panel, 75 KW solar installation that not only broke the community's dependence on external suppliers, but ushered in an era of sustainable living consistent with the community's most sacred beliefs.

Read More on Government of Canada

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QUOTE OF THE WEEK

I'd put my money on the sun and solar energy. What a source of power!

I hope we don't have to wait until oil and coal run out before we tackle that.

Thomas Edison speaking with Henry Ford (1931)

Read More Edison Quotes on google

EVENTS**TABLE**

DATE	CONFERENCE	LOCATION	REGISTER
Jul. 8-9	2016 Summer Global Nursing Symposium	Los Angeles USA	http://www.uofriverside.com/
Jul. 26-30	Building Trust: A Global Challenge in Health System Reform The Network: Towards Unity For Health (TUFH) 2016 Conference	Shenyang China	http://www.cvent.com/events/
Aug. 9-14	World Social Forum	Montreal Canada	https://fsm2016.org/en/sinformer/
Oct. 16-17	6th Global Forum on Health Promotion	Charlottetown Canada	http://parc.ophea.net/event/
Nov. 14-18	4th Global Symposium on Health Systems Research	Vancouver Canada	http://www.csih.org/en/events/
Nov. 21-24	9th Global Conference on Health Promotion	Shanghai China	http://www.who.int/healthpromotion



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Read this free solar energy newsletter. Here's a sample of current articles:

New Model for Speed, Motion of Solar Flares

It Pays to Increase Energy Consumption

Investment in Energy Storage Vital: Study

Solar and Wind to Power Internet of Things

Simpler Processing Improves Solar Cells

Large-Scale Technique to Produce Quantum Dots

Future Solar Cells Based On Iron Molecules?

Improving Perovskite Solar Cells, With Rest

'Nanocavity' for Ultrathin Solar Panels

Changes in Solar Cell Technology

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RENEWABLE ENERGY OVERVIEW



We are on the verge of a profound shift in the way we produce and use energy. This shift will move the world away from the consumption of fossil fuels (such as oil, coal and natural gas) that cause climate change toward cleaner, renewable forms of power.

The popularity of renewable energy is already exploding as millions of people around the world use it to generate electricity, to heat and cool buildings and to produce a variety of cleaner vehicle fuels. Wind and solar are the fastest growing sources of energy in the world. These low-polluting energy industries are creating hundreds of thousands of new jobs in countries as diverse as Germany and China. In fact, the renewable-energy sector generates more jobs per megawatt of power installed, per unit of energy produced, and per dollar of investment than the fossil fuel-based sector.

Canada, the second largest country in the world by area, is richly endowed with renewable energy, including wind, solar, hydro, biomass, geothermal and marine (e.g. tidal wave energy) sources. With the right policies, Canada can use renewable energy to satisfy its energy needs and become a world leader in sustainable technologies.

Read More on davidsuzuki.org



AFRICA LAUNCHES MASSIVE RENEWABLE ENERGY INITIATIVE



African heads of state announced plans for a gigantic renewable energy initiative that would provide as much as 300 gigawatts of renewable energy – twice the continent's total current electricity supply – by 2030.

The African Renewable Energy Initiative (AREI), announced at the start of the two-week United Nations climate negotiations in Paris, aims to achieve 10 gigawatts of new renewables by 2020 and mobilize the potential to generate 300 gigawatts by 2030. The initiative is driven by African countries and represents a part of their contribution to the global efforts on climate change and eliminating energy poverty.

The AREI initiative will help African nations embrace low-carbon development strategies while creating jobs, improving energy security and bringing clean, safe and affordable energy to the 640 million Africans who currently lack access to it.

Read More on WWF

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KNOWLEDGE SHARING PIVOTAL FOR A LOW CARBON GLOBAL BUILDING INDUSTRY

KNOWLEDGE SHARING



A new project commencing this month called the Low Carbon Built Environment Knowledge Hub project will present research evidence in an even more succinct and user friendly way. Once complete this knowledge hub will be the global source of information for government and industry decision makers across the globe. Currently information on the built environment is too often based on anecdotal or small sample studies, but this is changing and the Knowledge Hub will provide the methodology to ensure the systematic review picks up quality evidence suitable for the built environment sector for design, planning and policy innovations. This is a very important project for Australia and the world, which will be completed by July 2018 with much news and development to report along the way. I therefore wish to invite those working in the built environment arena to be aware of this project and its global implications.

We all have a common goal to reduce our carbon footprint and sharing key evidence to help create low carbon built environments is a must for this challenge.

Read More on the fifthestate.com



DUBAI TO BUILD A GIANT SOLAR POWER PLANT



Dubai on Thursday announced plans to build a 1,000-megawatt solar power plant by 2030, the year it aims to turn to renewable energies for 25 percent of electricity needs.

The first stage of the concentrated solar power (CSP) plant aims to produce 200 MW in April 2021, the Dubai Water and Electricity Authority said. "This project is going to be the biggest CSP plant worldwide," said DEWA chief Saeed al-Tayer.

The power authority is looking for private companies to build and operate the plant and sell electricity to the public firm in charge of distribution. Dubai opened in October 2013 a 13-MW plant while another is expected to be operational in April 2017 with a capacity of 200 MWs.

Unlike neighbouring oil-rich Abu Dhabi, Dubai has a dwindling reserve of crude and has diversified its economy toward trade, transport and tourism.

Read More on Solar Daily

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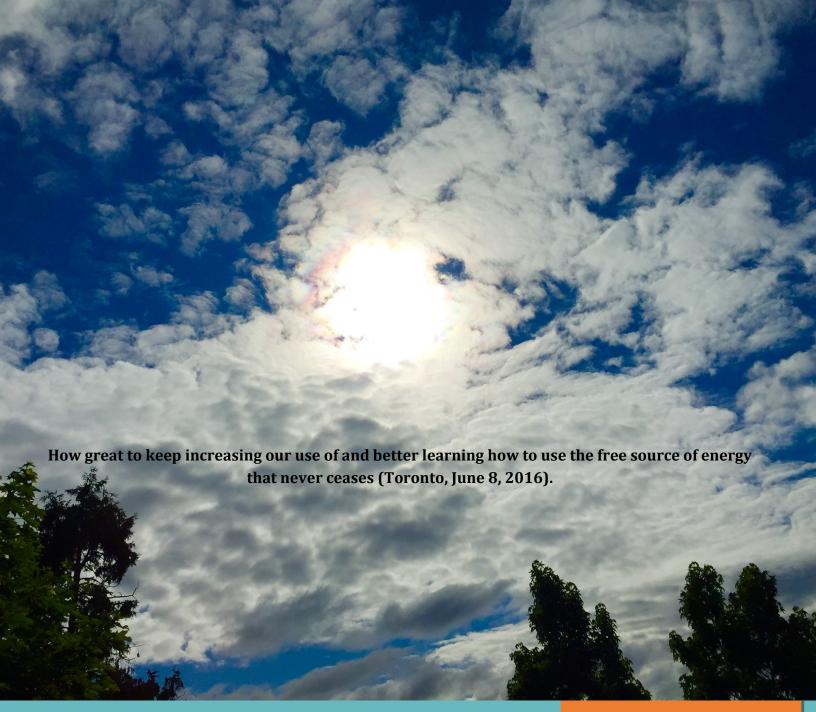
Developing countries spent more on renewable power than rich ones for the first time last year...Global investment in renewable power was more than double the amount spent on new coal and natural gas-fired power generation in 2015...Overall spending on green energy rose five percent from 2014 to \$286 billion, beating the previous record set in 2011.

China opened its coffers the widest, accounting for more than a third of total investment worldwide, while India, South Africa, Mexico and Chile also significantly increased spending.

In total, some 147 gigawatts of capacity was added during the year -- the largest increase ever and reportedly the equivalent of all of Africa's generating capacity.

Renewables are now established around the world as mainstream sources of energy...New markets for both centralised and distributed renewable energy are emerging in all regions. Wind and solar power were the biggest winners, with more than half of the money committed to renewables in 2015 spent on harnessing the sun's energy, according to the report.

Read More on Solar Daily



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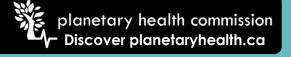
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