

Week in Energy Newsletter

As the first ever Climate Week, these past seven days were truly momentous for the world and for the energy sector. Special thanks to Emily Kelsey for her contribution. Send your energy news and updates to the editor at efairman@andrew.cmu.edu!

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Climate Week NYC 2014

September 21st Climate March

Over 310,000 people participated in last Sunday's Climate March in New York City. Similar marches took place in cities around the world, including London, Melbourne, and Aleppo. Read one student's first-hand observations here:

<https://drive.google.com/file/d/0B317DwTWsJwoZVI5cHdfSWdzSWs/edit?usp=sharing>

UN Climate Summit

The recent NY summit on Tuesday September 23rd was not a formal negotiating session, but instead served as an important discussion forum for 125 world leaders to build momentum towards the binding 2015 Paris agreement. In fact, the President Obama did announce the intention of revealing aggressive post-2020 CO₂ targets in early 2015. The 2009 UN Framework Convention on Climate Change negotiations in Copenhagen did include [2020 emissions targets](#), but countries have been reluctant to announce further commitment. Unlike the failed Kyoto Protocol, the Paris agreement will require the participation of not only industrialized countries, but all big emitters. Although the President of China and the Prime Minister of India were not present at the UN Climate Summit, they did send high ranking representatives to attend.

Economic and business leaders were integral to the summit. Indeed, Oxfram America has released a study reporting \$490B of accumulated damage due to environmental catastrophes since Copenhagen. *The New York Times*: http://www.nytimes.com/2014/09/24/business/energy-environment/passing-the-baton-in-climate-change-efforts.html?_r=0

Even the Compact of Mayor's has agreed to enact carbon cuts in cities, which represent 70% of global emissions. *World Resources Institute*: <http://www.wri.org/news/2014/09/statement-wri-reacts-major-announcements-cities-forests-and-carbon-pricing-un-climate-0>

Summary of commitments, *The New York Times*:
<http://dotearth.blogs.nytimes.com/2014/09/23/u-n-climate-summit-harvests-a-host-of-commitments/>

New York Declaration on Forests, *The Guardian*:
<http://www.theguardian.com/environment/2014/sep/23/un-climate-summit-pledge-forests-new-york-declaration>

Rockefeller Brothers Fund Divested \$50M from Fossil Fuels
Time: <http://time.com/3419456/fossil-fuel-divestment-climate-change/>

National Policy Updates

Renewable Fuel Standards

Amid a media-whirlwind centered on the Obama Administration's aggressive Climate Action Plan, not all are please. Click on the link below to view an advertisement that appeared in the *New York Times* this week, advocating for an adjustment to the Renewable Fuel Standards.
<https://drive.google.com/file/d/0B317DwTWsJwoRG9uRWc0X20ySFk/edit?usp=sharing>

Charge Ahead California Initiative

The [SB1275](#) sets a goal for one million electric, or non-polluting, vehicles on California's roads by 2035. The law also sets up a pilot program for car sharing, helps lower-income residents qualify for loans, and allots incentives for cities and landlords to install electric charging stations for vehicles. The funding for this law—approximately \$200M annually—will come from a cap-and-trade program for carbon emissions. *Los Angeles Times*: <http://www.latimes.com/local/political/la-me-pc-brown-electric-vehicles-20140921-story.html>

Related law:

[SB1204](#) – goal of zero/near-zero emissions for trucks, busses, and off-highway vehicles

New York folds Climate Change into Future Infrastructure

Under the Community Risk and Resiliency Act state agencies must consider future climate risks caused by extreme weather patterns.

Find out more from NY governor Cuomo:

<https://www.governor.ny.gov/press/09222014-resiliencyact>

Desert Renewable Energy Conservation Plan

The Interior Secretary announced the [DRECP](#) on Tuesday September 23rd. The plan establishes 2 million acres of development focus areas within the southern CA desert, a 22.5 million acre planning area. These development focus areas will house solar, wind, and geothermal development over the next three decades. The competitive leasing process established by DRECP is similar to the process in place for proposed oil and natural gas projects on federal land.

House Bill for Energy Efficiency Upgrades

The bill HR 2689 would allow federal agencies to enter Energy Savings Performance Contracts (ESPCs) with private contractors for energy efficiency upgrades to federal facilities.

Congressional Budget Office: <http://www.cbo.gov/publication/45748>

International News

Carbon Pricing is a Key Strategy

Is it possible to pinpoint a single global price on carbon? In preparation for the UN Climate Summit on Tuesday, Russia and China—major climate polluters—joined 80 other governments and over one thousand companies in support of carbon pricing. The World Bank made this announcement on Monday, September 22nd. *Governors' Wind Energy Coalition:*

<http://www.governorswindenergycoalition.org/?p=10328>

The United States chose not to sign the pledge, but seven states did independently. Why not? Read more from *The New York Times:*

<http://www.nytimes.com/2014/09/28/world/americas/presidents-drive-for-carbon-pricing-fails-to-win-at-home.html>

Reducing Methane Emissions

The United States pledged \$15M to the World Bank's pilot auction facility to reduce methane emissions. The facility needs a total of \$100M.

The World Bank: <http://www.worldbank.org/en/topic/climatechange/brief/pilot-auction-facility-methane-climate-mitigation>

The Climate and Clean Air Coalition announced an industrial commitment to methane as 6 oil and natural gas companies agreed to track and manage leakage throughout their operations, develop implementation plans, and share information on leakage with the coalition.

Read more from the press release:

<http://www.unep.org/ccac/Media/PressReleases/WorkingtoReduceMethaneandBlackCarbon/tabid/131810/language/en-US/Default.aspx>

Russia and South Africa enter Nuclear Agreement

South Africa will be home to eight new reactors, allowing for 9.6 GW of electricity by 2030. Russia will sponsor the nuclear power plants in return for a spy satellite deal as well as a \$3B platinum mine in Zimbabwe.

Times: <http://www.timeslive.co.za/local/2014/09/22/russia-and-south-africa-sign-nuclear-energy-deal>

Technology

Biofuel

Southwest Airlines Powering Flights with Biofuel

Southwest Airlines recently signed an agreement with Red Rock Biofuels LLC to purchase 3M gallons of renewable jet fuel per year, starting in 2016. The jet fuel is derived from forest residue outside the Colorado facility. The biofuel will make up less than 1% of fuel combusted annually by Southwest Airlines—approximately 1.8B gallons of fuel was consumed in 2014.

Dallas News: <http://www.dallasnews.com/business/airline-industry/20140924-southwest-airlines-to-power-some-flights-with-biofuels.ece>

Solar

Grand Opening of Solar Manufacturing Plant

Mission Solar Energy LLC is the first commercial-scale producer of N-type solar panels in the United States. The production facility manufactures 72-cell modules which can each produce 320 W, with an annualized output of 200 MW. This facility is an important component of the utility [CPS Energy](#)'s goal to become 20% renewable by 2020. [Mission Solar](#) is collaborating with [Sun Action Trackers LLC](#) to provide the technology to orient the solar panels toward the sun's rays.

Grid Alternatives as a Demonstration Model for the Rest of the Nation

The solar industry will not be wide-spread without the involvement of lower income households. Thus, [Grid Alternatives](#) installs solar systems and trains workers using funding from cities and states. Recently, Grid Alternatives expanded to include the mid-Atlantic region.

Solar-powered Aircraft to Journey Around the World

In March 2015, an airplane with wings covered in 17,200 solar cells will take off from Abu Dhabi to fly around the world in 4-5 months.

Read more from [Solar Impulse!](#)

Wind

Shipping Wind Power from Wyoming to LA

Governors' Wind Energy Coalition: <http://www.governorswindenergycoalition.org/?p=10375>

Demonstration Project to test Lithium-Ion Battery Storage and Smart Inverter Technology

The utility [Southern California Edison](#) is financing a 32 MWh battery system over a two-year test period. These are the same batteries inside Chevy Volt electric vehicles, manufactured by LG Chem. Ltd. The \$50M project will store wind energy from farms outside Mojave, CA; these wind farms could generate up to 4.5 GW of energy by 2016. The project will positively contribute to California Public Utilities Commission target of 1.325 GW of energy storage capacity by 2020.

Green Tech Grid: <http://www.greentechmedia.com/articles/read/The-Biggest-Battery-in-North-America-Gets-Unveiled-By-SCE-Today>

Other

MIT Liquid Battery

MIT News: <http://newsoffice.mit.edu/2014/liquid-batteries-renewable-energy-0921>

Nature: <http://www.nature.com/news/liquid-metal-batteries-get-boost-from-molten-lead-1.15967>

Nest Labs offers “Smart” Thermostat

A company that is formed by the founders of Apple, [Nest Labs](#), offers technology that is “innovative, simple, smart, and beautiful.” They have already sold devices to early adopters, but are now partnering with utilities to market reliable energy savings and increased customer ownership.

EPA Issued Permits for Underground Injection and Storage of CO2

The [Archer Daniels Midland Co.](#) will store emissions from their ethanol plant under the new Underground Injection Control Program Class VI well designation. A permit was officially issued this Friday September 26th. Read more about the site’s original plans for Industrial Carbon Capture and Storage (ICCS) in 2009 here:

<http://www.alrc.doe.gov/publications/factsheets/project/ARRA1547.pdf>