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News. June, 2015. Issue #39. 64,000 ESB [video views](#). *100% Renewable by 2035.*

*My general advice to solar supporters is: Don't leave the introduction of solar energy to the existing energy system and its economy, because this is like leaving a non-smoking campaign in the hands of the tobacco industry.*

*- Hermann Scheer. Architect of Germany's Energiewende (energy transition).*

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## **Moving to 100% Renewables**

**Finland: 100% Renewables: Viable & Economic (G)**

<http://cleantechnica.com/2015/06/10/fully-renewable-energy-system-economical-viable-finland/>

**UBS: Solar Will Soon be “default technology of the future”**

*As much as 10% of the world's power could be generated by solar within a decade. (G)*

<http://www.utilitydive.com/news/ubs-solar-will-soon-be-default-technology-of-the-future/400443/>

## **Global Renewables Status Report**

In 2014, more renewables have been added than coal and gas generation combined worldwide.

As well, growth of renewables is slowed because of massive subsidies for fossil & nuclear energy - estimated as *USD 550 billion ... to USD 5.6 trillion* per year worldwide - far more subsidies than renewables receive. (PG)

<http://www.ren21.net/status-of-renewables/global-status-report/>

## **New York: Reforming the Energy Vision**

This is a concise and clear look at the problems of our current electricity system and what New York State is doing to address those problems.

*Due to mounting costs, aging infrastructure, increasingly frequent extreme weather events and our imperative to address climate change, we must fundamentally shift how we generate, consume and store energy... our energy system has changed little since the time of Thomas Edison. We produce electricity in large power plants and transmit it through power lines in a system that is built to support the few hours each year when the demand is highest.*

*That status quo creates cost, reliability, and environmental problems. In New York, paying year-round for a system sized to meet the 100 hours of peak demand costs us between \$1.7 and \$2.6 billion a year...*

*The good news is that our constraint is not technology. Instead, the constraint lies in outdated business models... The article then lays out what New York is doing to reform the regulation and business models of electric utilities in the state. And all this in about two pages! (G)*

<http://www.energybiz.com/article/15/06/new-yorks-rev-business-model>

## **Study: 5,000 MWs PV Could Be Installed on Public Buildings in Cities Around the US**

*All told, over 5 gigawatts of solar could quickly be installed on public building rooftops across the 25 states where policy — power purchase agreements — lets cities tap federal tax incentives through third parties and install solar with no upfront cost. (G)*

[http://blog.renewableenergyworld.com/ugc/blogs/2015/06/why\\_haven\\_t\\_citiesc.html](http://blog.renewableenergyworld.com/ugc/blogs/2015/06/why_haven_t_citiesc.html)

For example, Minneapolis (18 MW) and Kansas City (70 MW). (Both G)

<http://www.ilsr.org/solar-potential-on-public-buildings-in-minneapolis>

<http://www.ilsr.org/solar-potential-on-public-buildings-in-kansas-city/>

## **Biomimicry: Silent Owl Wings May Help Quiet Wind Turbines (G)**

<http://www.renewableenergyworld.com/news/2015/06/scientists-research-stealthy-owl-wings-in-bid-for-quiet-wind-turbine.html>

## **Stanford: 50 State Plans: 100% Technically & Economically Feasible**

*“This study presents roadmaps for each of the 50 United States to convert their all-purpose energy systems (for electricity, transportation, heating/cooling, and industry) to ones powered entirely by wind, water, and sunlight (WWS). .. Conversion would reduce each state’s end-use power demand by a mean of ~39.3% (most) of this due to the efficiency of electrification and the rest due to end-use energy efficiency improvements. Year 2050 end-use U.S. all-purpose load would be met with ~30.9% onshore wind, ~19.1% offshore wind, ~30.7% utility-scale photovoltaics (PV), ~7.2% rooftop PV, ~7.3% concentrated solar power (CSP) with storage, and just a bit of geothermal, wave, tidal, and hydro power.*

*Over all 50 states, converting would provide ~3.9 million 40-year construction jobs and ~2.0 million 40-year operation jobs for the energy facilities alone, the sum of which would outweigh the ~3.9 million jobs lost in the conventional energy sector.*

*Converting would also eliminate ~62000 (19000–115000) U.S. air pollution premature mortalities per year today and ~46000 (12000–104000) in 2050, avoiding ~\$600 (\$85–\$2400) billion per year (2013 dollars) in health care costs.*

*Converting would further eliminate ~\$3.3 (1.9–7.1) trillion per year in 2050 global warming costs to the world due to U.S. emissions. These plans will result in each person in the U.S. in 2050 saving ~\$260 (190–320) per year in energy costs (\$2013 dollars) and U.S. health and global climate costs per person decreasing by ~\$1500 (210–6000) per year and ~\$8300 (4700–17 600) per year, respectively.*

*The new footprint over land required will be ~0.42% of U.S. land. ... Thus, 100% conversions are technically and economically feasible with little downside.” (PG)*

<http://web.stanford.edu/group/efmh/jacobson/Articles/I/USStatesWWS.pdf>

### **New Yorker: Power to the People**

This article tells a persuasive story of change and utility opposition to change.

Green Mountain Power (GMP) is a for profit electric utility serving Vermont. With aggressive support of customer-sited efficiency and renewables they are making a big dent in carbon, and keeping rates stable and meeting revenue goals. “*If we move in this direction very rapidly, we can, hopefully, keep rates flat forever,*” (the CEO) said, and, in fact, GMP cut its electric rates by two per cent last year.

Unlike GMP, most utilities around the country insist that they are “pro-solar” while at the same time severely limiting solar by making it cost a ton - Salt River Project in Arizona now charges customers with solar \$50 per month above what regular customers pay. In response, an interesting coalition of conservatives and often liberal environmentalists have formed groups like the green tea party and TUSK in Arizona (Tell Utilities Solar won’t be Killed). (G)

<http://www.newyorker.com/magazine/2015/06/29/power-to-the-people>