

How Energy Investors Can Benefit From the Electric Revolution

Smart investors can benefit from the growing focus on energy efficiency and renewables.

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Many investors lump all their energy investments together, including everything from [oil and gas exploration](#) to solar energy. But with the slow decline of fossil fuels and the rapid adoption of solar power and electric-powered cars, investors should consider a new approach. By separating energy investments into non-electric and electric sectors and favoring innovative electric energy plays, investors could enjoy an opportunity to invest in the new but also to make the best of the old.

A revolution is taking place in the energy industry offering the potential of achieving higher risk-adjusted returns from what could be called the electric sector. What is meant by non-electric and electric?

Think of the non-electric sector as largely comprising the energy suppliers that propel the various means of transportation: [planes](#), trains, trucks and automobiles. It also includes natural gas used for transportation, to heat our homes and to power factories. Think of the non-electric sector as using the energy rich resources of oil and gas as a way to fuel both transportation and heat.

Meanwhile, the electric sector is comprised of the carriers of conventional and renewable energy services employed by both stationary and mobile users. This segment includes coal, oil and gas, but it is also much more diversified and includes

solar, wind, nuclear and hydroelectricity. Think of this sector as electricity generators and users investing [in renewables](#) and other new technologies, often making huge investments for the future.

The shifts in the energy business are major.

Some 4,600 megawatts of coal-generated electricity have been retired in the United States since the start of 2014 and another 7,700 MW is [expected to be retired](#) by the end of this year. While this is not the end of coal as a fuel source for the electric sector, it is a sign that there are changes in the U.S. energy industry that are likely part of a huge shift in energy economics. The industry is moving away from classical factors such as least-cost planning toward demand-side response, renewable energy and even higher fuel-efficiency standards.

Car engines have become more efficient, needing less fuel. Homes are installing new appliances that reduce their energy intensity per occupant from hot water heaters to outside lighting using LEDs. Total solar energy investment has skyrocketed, up from just \$2.5 billion in 2004 to more than \$70 billion by the start of 2015. And the market share of [electric cars in the United States](#), while still less than 1%, more than quadrupled between 2011 and 2013.

New regulations are also making it more expensive for companies to operate with traditional energy, including utilities, which need to comply with regulatory efforts to limit their emissions and continuously upgrade their facilities to meet technology requirements. These regulations are being rolled out at the same time technology innovation is finding ways to make households more efficient. In some cases, utilities have become a sort of bank enabling households to make deposits throughout the day when [their solar](#) rooftops generate electricity.

However, it is really the non-electric sector that is getting squeezed from reduced demand and the true cost of emissions. Perhaps they should. Companies in the electric sector making new investments that allow them to comply with regulation are getting a free pass. That is, they are positioned to benefit from their grandfathered electric-generating assets so long as they are making new investments to change up

their energy mix. This is the little discussed secret for why many in the electric-generating industry have supported legislation or **EPA** regulations to limit [greenhouse gas emissions](#).

There is evidence for this already underway. The electric industry is extending its shore-to-shore grid to accommodate new technologies such as [utility-scale solar farms](#) and household rooftop panels. This has limited the dependency on the existing grid while meeting the growing needs of electric cars and other trends. Those states whose [Public Utility Commissions \(PUCs\)](#) are providing incentives for utilities are seeing the most in new investments. This expanded grid could be a disruptive event within the global energy market by creating new demand for electricity and a significant reduction in demand for non-electric energy.

This is possible because in the past it has been extremely difficult for coal, oil and gas to be substituted for one another. That has now changed because innovation is making renewables a meaningful part of the energy mix. It's a shift that will reward energy companies that are investing in new asset classes, while still profitably operating old ones.

Entelligent modeling suggests all this will translate into energy prices stabilizing and becoming more predictable, allowing investors to better evaluate risk. While war, political unrest, or an economic boom or bust can always change that scenario, this presents an longer-term opportunity for investors.

Companies that could benefit:

Ameren: This is an [old world utility](#) operating in the Mid-West but with a diversified mix of energy assets, including coal, natural gas, and nuclear generation. It is now investing to meet its commitment to 100 megawatts of renewable energy capacity.

Tesla Motors: This investor darling combines the visionary qualities of Elon Musk with the chic appeal of electric cars. It continues to lead the way in innovation, such as its new lithium-ion battery home storage system, the [PowerWall](#), already sold-out through 2016.

Xcel Energy: It is another [Midwest and Southwest utility](#) operating a diversified energy mix and acquiring a robust fleet of hydroelectric, solar and wind energy assets.