



Renewables: Growth Story Behind A Sleepy Sector

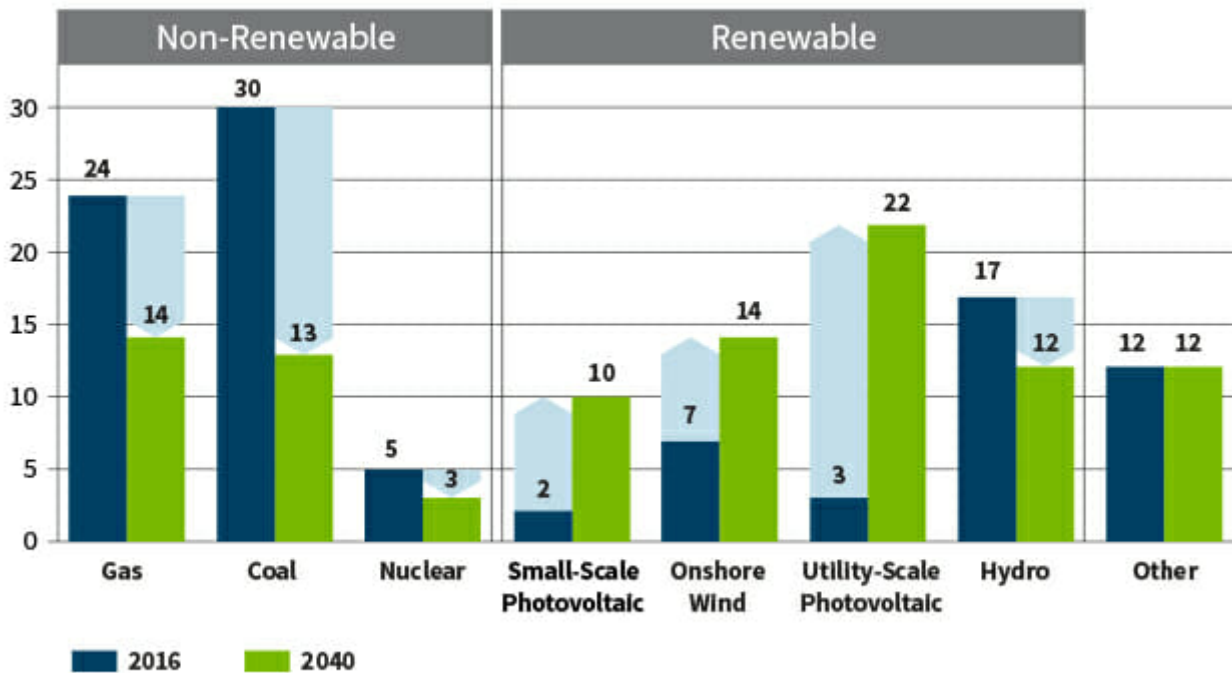
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Utilities are generally considered a sleepy sector, but growth does exist in the space—primarily in renewables, which are increasing their penetration in the power-generation category.

Bloomberg New Energy Finance expects global installed capacity of renewables to almost double by 2040. It estimates that 6,160 gigawatts of installed capacity will be added globally by 2040, and solar and wind will make up the bulk of that new capacity.

Indeed, it believes 72% of the \$10.2 trillion spent on new power generation worldwide by 2040 will be invested in new wind and solar plants.

Global Cumulative Installed Capacity, 2016 Versus 2040 Estimated



Source: Bloomberg New Energy Finance, as of 2016. Photovoltaic devices generate electricity directly from sunlight.

Driving the growth of renewables are three factors: regulatory requirements, improved cost efficiency, and increased consumer demand.

Regulatory Requirements

Globally, the Paris climate accord, which addresses greenhouse gas emissions mitigation, adaptation, and finance starting in 2020, is driving the growth of renewables.

In the United States, most states require utilities to produce or sell a certain percentage of electricity from renewable sources: 29 states have renewable electricity mandates, six have goals, and one (West Virginia) has an alternative energy mandate, according to the Institute for Energy Research.

Improved Cost Efficiency

Improvements in technologies are resulting in cost reductions. In the United States, tax credits currently help many renewable power generators compete with fossil fuels in terms of price, but by the time those subsidies are scheduled to end in 2022 wind and solar should be cheaper than coal.

Increased Consumer Demand

We've already retired a number of coal plants in the United States, and to meet the next cycle of demand, we'll likely need new sources of power.

At the end of the day, however, the demand driver for renewable power generation is the desire for sustainability among consumers. Most of the world simply believes we need to reduce CO2 emissions in order to enjoy a better

quality of life.

Businesses, are seeking to capitalize on that desire. Elon Musk, for example, isn't just building electric vehicles; he wants Tesla's entire supply chain to be energy efficient—so not only will the cars run on electricity, the source of that electricity will be green as well.

Risks

One risk to the growth in the United States of renewable power regeneration is U.S. policy, as I discussed in [“Making Coal Great Again?”](#) However, the latest draft of the tax legislation leave production tax credits in place for wind and solar.

In addition, Energy Secretary Rick Perry's proposal to subsidize struggling coal and nuclear plants was rejected by the Federal Energy Regulatory Commission. As a result, the near-term policy environment in the United States seems benign.

Another risk is that renewables are less stable than fossil fuels. It's not always windy, it's not always sunny, and it's not always raining. In addition, it's easier to stockpile fossil fuels and thereby support grid stability. You can store a 90-day supply of coal, but you can't store a 90-day supply of wind.

That problem, however, is driving significant investment into storage technology, such as batteries (the same batteries, incidentally, that electric vehicles will use—but that's another story).

Portfolio Implications

Renewables are a growth story, and because we're growth investors, we need to invest in them where it makes sense.

And between solar and wind, we see the latter being more profitable for utilities. That's because solar is becoming more distributed, meaning solar panels are becoming consumer items—as you might see in an off-the-grid tiny house. But, you can't install a wind turbine in your backyard.

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