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Key drivers of renewable energy growth in China

Energy demand in China has increased significantly due to rapid industrialization, a growing population and improving standards of living. China has actively been pursuing alternative sources of energy due to environmental concerns about pollution problems in major cities and high levels of carbon dioxide emissions. As part of this initiative, China has committed to increase non-fossil-fuel generation capacity to 15% of the country's overall total primary energy mix by 2020. Consequently, China has categorized renewable energy as one of nine strategic priorities in its thirteenth five-year plan for energy (2016 to 2020). Initiatives to increase the level of utilization of renewable energy sources through grid enhancements and energy storage are also promoted by the Chinese government.

China's government has enacted significant financial support policies to promote the development of renewable energy sources, including generation-based incentives as well as tax-based incentives. In 2009, the Chinese government launched a feed-in tariff program for wind energy. This feed-in tariff program makes wind energy projects eligible to receive tariffs in amounts in excess of the benchmark tariff received by local desulfurization coal-fired generating power plants. These tariffs range from CNY 0.51/kWh to CNY 0.61/kWh. In 2013, China launched a feed-in tariff program for solar energy. This feed-in tariff program makes solar energy projects eligible to receive tariffs in an amount in excess of the benchmark tariff received by local desulfurization coal-fired generating power plants. These tariffs range from CNY 0.90/kWh to CNY 1.00/kWh. In addition, certain provinces have launched generation-based incentive programs to promote solar energy growth, which are additive to the national feed-in tariff program. China has chosen to further incentivize commercial solar installation with a higher generation-based incentive policy.

Brazil

The installed base of energy generation capacity in Brazil increased from 113 GW in 2010 to 126 GW in 2013, or a CAGR of 4%. The following table summarizes the components of Brazil's installed energy generation capacity for 2013:

Fuel type	Percentage
Hydro-electric	69.0%
Gas	9.8%
Biomass	9.1%
Oil	7.6%
Coal	2.7%
Wind	1.8%
Solar	0.1%
Total	100.0%

Retail electricity prices increased in Brazil at a CAGR of 4% between 2006 and 2012. We expect retail electricity prices in Brazil to continue to rise primarily due to the recently announced increase of Brazil's electricity tariffs, and overall growth in electricity demand.

Brazil's renewable power market has also seen significant growth over the last three years. The cumulative installed capacity of renewable energy sources grew from 88 GW in 2010 to 99 GW in 2013, or a CAGR of 4%. Renewable energy accounted for 85% of overall energy capacity growth from 2010 to 2013. Renewable energy sources are expected to grow to 125 GW in 2017, a CAGR of 6% from 2014 to 2017.