





GROWTH OPPORTUNITIES FROM DECARBONISATION IN THE GLOBAL POWER MARKET

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Powered by a strong momentum behind renewable energy, the power market is heading into the 2020s having come many-a-mile from the last decade. The 2020s will be a critical decade for one and all in the power industry, as the transition toward renewable energy is expected to increase in volume, while coal will take a downturn in most developed markets. Simultaneously, the shift towards electric vehicles is expected to create numerous opportunities for emerging business models and collaborations and partnerships between incumbents in the energy and mobility ecosystem. This research and analysis centres on some of the most important market trends across 5 major geographies—North America, Latin America, Europe, the Middle East, China, and India. The most significant trend observed across developed markets is the surge in need for flexibility, as system operators are coming under increasing pressure to manage the system with uncertain renewable output, declining coal output, and demand-side variability. As a result, technologies and solutions such as battery energy storage systems (BESS), gas engines, demand side response (DSR), and virtual power plants (VPP) are witnessing unprecedented adoption rates amongst utilities, solution providers, and end consumers, as these can also participate in flexible markets, including ancillary services. Moreover, the shift towards electric vehicles is expected to give rise to newer business models such as vehicle to grid (V2G), vehicle to home (V2H), and dynamic pricing, as consumers look to monetise their assets through market opportunities. Emerging countries, China and India, are expected to primarily depend on coal in the coming decade even though they continue to add renewable energy capacities to their respective grids.



Coal plant utilisation, however, is likely to decline, especially during the day, as solar photovoltaic (PV) continues to penetrate in both markets. The Middle East, on the other hand, underpinned by the shift in energy policy, is starting to shift away from fossil fuels towards renewables, mainly solar PV and wind. Meanwhile, Latin America is set for a record decade, as electricity demand is forecast for above-average growth. Through various conversations with market incumbents, Frost & Sullivan opines that the following 3 factors are vital for industry participants across the globe:

- Decentralization and Flexibility
- Emerging Business Models
- Collaborations and partnerships on various fronts such as digitisation, electric vehicles, and energy aggregation