

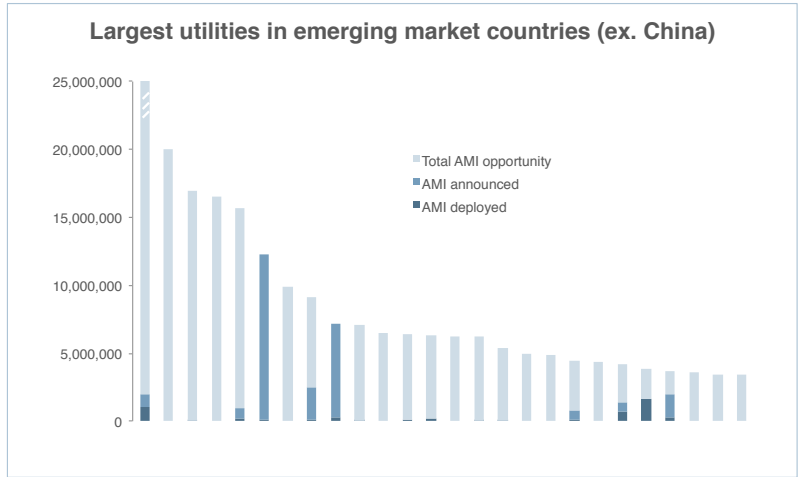
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Emerging Markets Smart Grid: Outlook 2020

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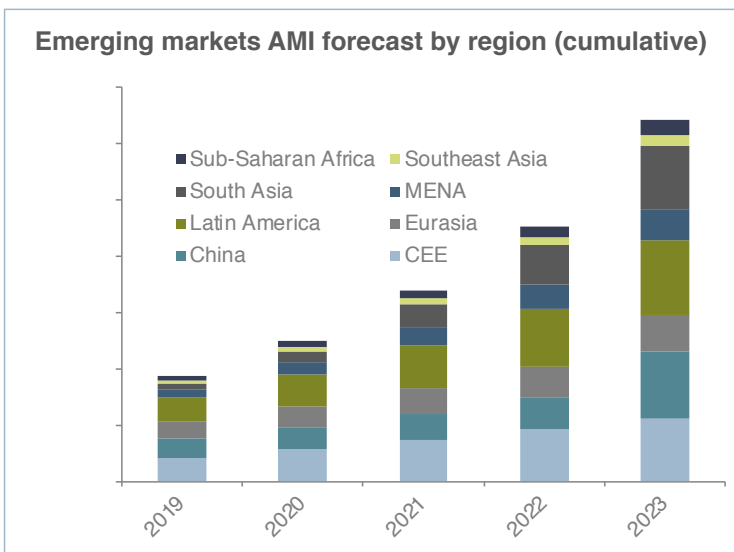
Emerging Markets Smart Grid: Outlook 2020

Northeast Group's *Emerging Markets Smart Grid: Outlook 2020* is the ninth edition of its annual emerging markets smart grid forecast. The 2020s promises to be a decade in which almost all emerging market countries will begin, continue, and in many cases complete smart grid infrastructure rollouts. This study highlights the 50 emerging market countries that will see the highest levels of investment over the next five years.



The 2020s will be a pivotal period for smart grid infrastructure, when emerging market countries begin to shift from their long-time status as areas of promise to one of immediate large-scale investment. As the majority of key deployments in the developed regions of North America, Western Europe, and East Asia are either wrapped up, currently underway, or awarded, vendors must shift their focus to opportunities opening up in countries across emerging market regions.

While expected progress in many of the most highly touted emerging market countries has been perennially disappointing, overall market conditions have steadily improved over the past decade, with more regulatory activity and the release of more major project tenders than ever before. Non-technical loss rates remain high, GDP and electricity consumption rates continue to grow, and per-endpoint AMI prices have begun to steadily decline. By the mid-2020s, emerging market activity will be highlighted by countries including India, Mexico, Saudi Arabia, several countries of Europe, and China, which remains dominated by domestic vendors. Despite the inherent risks in pursuing emerging market tenders—most conspicuously seen in the recent cancellation of major projects in Pakistan and Uzbekistan—favorable conditions are now in place for over \$88 billion to be invested across these 50 countries over the next five years.



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Key questions answered in this study:

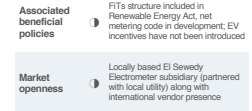
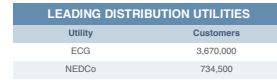
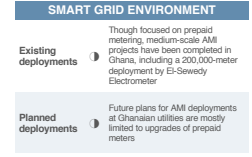
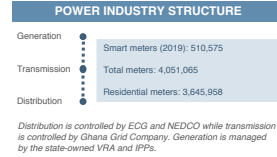
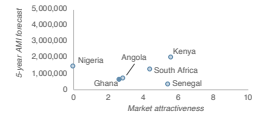
- Which 50 emerging market countries will deploy the most AMI meters over the next five years?
- Which countries have hit project obstacles and which have reached key milestones?
- Which utilities have deployed AMI and which ones have concrete plans and tenders?
- What are the key investment themes in each region of the world?
- What is the forecast market for AMI, distribution automation, wide area measurement, home energy management, battery storage, and IT in each emerging market region?

Research Deliverables:

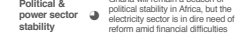
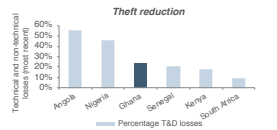
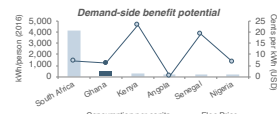
- 102-page PDF study; and
- Excel dataset.

Ghana

Population: 29,767,108
 GDP/capita at PPP (2019): \$8,956
 GDP growth (Avg. 2020-2024): 4.4%



SMART GRID BUSINESS CASE INDICATORS



GHANA 5-YEAR AMI FORECAST

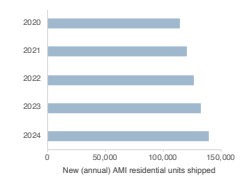


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In addition to the figures and tables shown above, each country summary includes the following:

- Table: Power industry structure;
- Table: Leading distribution utilities
- Table: Smart grid environment
- Chart: Smart grid business case indicators
- Chart: 5-year AMI forecast

Therefore, this study includes over 100 additional unique charts and tables in addition to those cited above.

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