



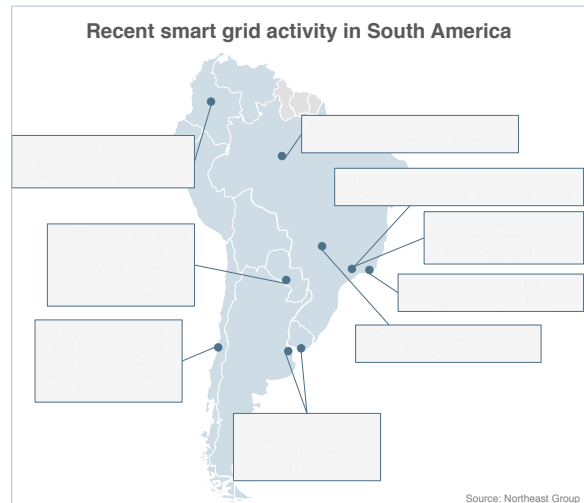
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South America Smart Grid:
Market Forecast (2015 – 2025)

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South America Smart Grid: Market Forecast (2015 – 2025)

South America is one of the most attractive emerging market regions for smart grid infrastructure investment. The region is comprised of countries with developing regulatory frameworks and core business case indicators that point towards immediate benefits from smart grid infrastructure. From 2015 to 2025, the region’s total smart grid market will cumulatively reach \$38.1 billion. This includes investment in advanced metering infrastructure (AMI), distribution automation (DA), wide area measurement (WAM), home energy management (HEM), information technology (IT), and battery storage.



This study covers all ten Latin countries in South America, which share several key characteristics. They are fast growing economies with burgeoning middle classes, yet still have some of the highest electricity theft rates in the world. They have abundant renewable sources of power—particularly large hydropower—but their grids are struggling to meet rising demand. Further distributed renewable energy resources are also becoming increasingly attractive across the region. Lastly, they have governments eager to keep electricity prices low, but wary of increasing subsidies.

Smart grid projects at Brazilian utilities							
Utility	AMI	DA	DG	Storage	EVs	IT/ Analytics	Smart buildings

Throughout South America, smart grid infrastructure is now viewed as a solution to many of the challenges the region is facing. Eight of the ten countries already have significant pilot projects in place, while half of the countries have developed some form of smart grid roadmap. Brazil is leading the way with pilot projects dating back to the mid-2000s, recently announced plans for over 3 million new AMI meters, and a

number of smart city projects that are testing out a variety of smart grid applications. Furthermore, Brazil's government has set regulations for smart meter deployments and created incentives for residents to install small-scale solar PV along with smart meters. As the largest country in the region, Brazil will drive the market—its conditions are similar to most other South American countries and regional standardization is improving.

But Brazil is not alone in its smart grid development. Ecuador has set an even more ambitious timeline for smart grid deployments, while Colombia and Peru are in the process of finalizing smart grid roadmaps. Chile is developing its own smart city projects, Argentina is funding smart grid R&D, and even Paraguay is developing smart meter pilot projects. Beyond AMI, distribution automation is a focus for almost all South American utilities due to poor reliability, and several South American countries are also currently developing phasor measurement unit projects throughout the transmission grid.

The key driver of these initiatives is the unique near-term and long-term benefits South American countries will receive from smart grid infrastructure. Unlike some of the more developed emerging market countries, South American utilities will receive near-term savings from smart meter deployments by reducing non-technical losses. At 15%, the regional transmission and distribution (T&D) loss rate is among the highest in the world. But there are also important long-term benefits to smart grid infrastructure that help win governmental support—rising middle classes mean that demand response programs will grow in importance and developing the region's strong solar, wind, and small hydro resources will require smart grid to help manage the increased variability. Utilities can therefore make near-term deployments to help reduce non-technical losses, while laying the groundwork for long-term benefits.

Current smart grid activity remains in the early stages and there are some challenges to overcome. Most notably, concrete regulatory incentives have failed to develop in the past two years as governments seek to find ways to finance their ambitious plans to largely low-income residents. But these factors are slowly changing—incomes are rising, smart grid infrastructure costs are falling, and regional collaboration is creating regulatory frameworks that can be adopted throughout the region. As a result, South American countries are poised to reap the significant benefits of smart grid, with significant investment expected throughout the forecast period.

Key questions answered in this study:

- Where are the newest smart grid announcements and deployments in South America?
- How large will the smart grid market be in 10 countries across 15 sub-segments?
- Which countries are poised to take the next steps for smart grid regulatory development?
- Which local vendors are active and who are the leading international vendors?

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