



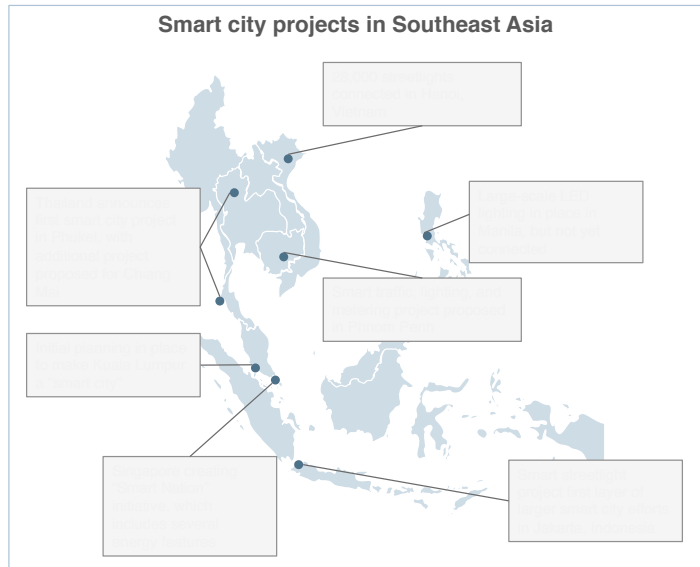
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Southeast Asia Smart Grid: Market Forecast (2016 – 2026)

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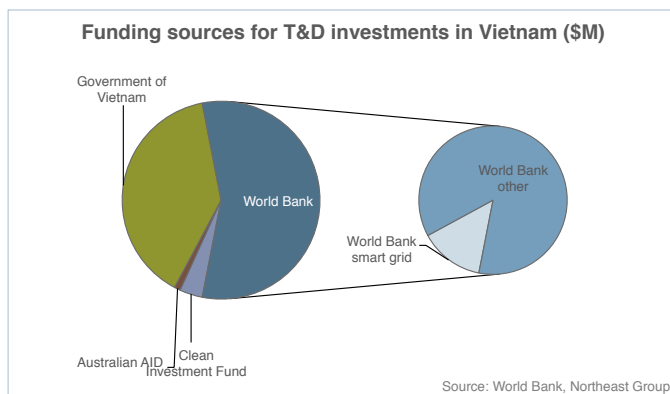
Southeast Asia Smart Grid: Market Forecast (2016 – 2026)

Southeast Asia is a growing smart grid market that continues to show extensive progress and promises significant benefits for consumers and large opportunities for vendors by the end of this decade. Countries in the region continue to grow and electrify quickly, accelerating the benefits of smart grid and spurring governments to develop smart grid roadmaps and deployment plans. In recent years, smart grid deployments have begun in Singapore; Malaysia has set deployment plans for rolling out over 8 million AMI meters;



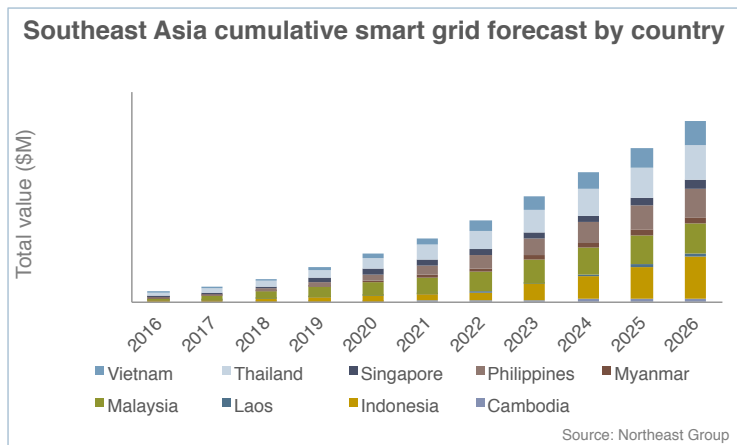
Thailand has established numerous pilot projects that will total over 1 million AMI meters; and external aid has begun to support smart grid throughout the region. Overall, Southeast Asia still trails the developed countries and leading emerging market regions for smart grid potential, but in recent years, it has closed the gap significantly, and high growth ensures continued progress in the near term.

As a region, Southeast Asia has the highest projected GDP growth rate of all emerging smart grid markets, outside of China and India. All countries, except for Singapore and Thailand, will see GDP growth rates average near or above 5% per year through 2020. These high GDP growth rates are not guaranteed however, and will present structural, political, and social challenges to Southeast Asian countries. Understanding how these countries plan to manage their corresponding electricity demand growth is critical to understanding the role that smart grid infrastructure will play in Southeast Asia.



Implementing smart grid infrastructure can help Southeast Asian countries with high growth in ways beyond simply helping manage energy supply shortages through demand response and other programs. As these economies grow, existing grid infrastructure will increasingly prove insufficient, and power reliability will become more of an issue. Smart grid infrastructure throughout the transmission

and distribution networks will help utilities proactively address weaknesses and maintain higher power quality and reliability. Additionally, economic growth could lead to higher rates of non-technical losses as new customers are added to the grid and their bills increase due to higher consumption rates – this has already been seen in Laos and Vietnam. Currently, Southeast Asian countries have low-to-moderate theft rates when compared with other emerging markets, but without smart meters non-technical losses could grow alongside the overall economies.



In the past two years since the second volume of this study was published, many of these factors have already played out. Southeast Asian countries have grown as fast as previously projected, and smart grid activity has kept pace. Work has continued on projects in Malaysia, the Philippines, Singapore, and Thailand, as well as new stronger regulations, particularly in Malaysia. Projects and policies like these are expected to increase throughout the region in the medium term, as all countries in the region will be facing challenges that smart grid infrastructure will be best placed to address. With stronger regulatory models to follow and indicators pointing towards greater savings from smart grid infrastructure, deployments will be well developed in all major Southeast Asian countries by early in the next decade.

Key questions answered in this study:

- Where are the newest smart grid announcements and deployments in Southeast Asia?
- How large will the smart grid market be in 9 countries across 15 sub-segments?
- What are utility deployment plans for the near-to-medium term?
- When will countries transition to prepaid AMI metering?
- Who are local vendors partnering with for smart grid projects?

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