

Interview with Mr. Mathias Steck  
Regional Manager Asia Pacific, Energy & Renewables Advisory, DNV GL Energy



*Key Points*

- Renewable energy is the fastest & most cost effective way to increase electrification in our region
- Renewable energy combined with storage can help address our region's energy challenges
- Smart Grids are needed, but so are smart diagnostics
- How utilities business models must evolve to address the rising popularity of renewable energy

*Mr. Mathias Steck is Regional Manager Asia Pacific, Energy & Renewables Advisory, at DNVGL Energy. He and his team deliver advisory services to the energy value chain including renewables and energy efficiency. Their expertise spans onshore and offshore wind power, solar, conventional generation, transmission and distribution, smart grids, and sustainable energy use, as well as energy markets and regulations.*

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*What do you think are the trends in renewable energy in Asia?*

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Renewable energy is experiencing considerable growth in Asia as continued economic growth drives energy demand and the economic, social and environmental issues associated with ongoing fossil fuel deployment become increasingly problematic. Energy security, climate change, fluctuating international commodity prices and health and social implications of fossil fuel use have led to increased commitment to accelerate renewable energy deployment by governments and development institutions across the region. Investors are attracted to growing markets with strong resources, a significant number of project opportunities and favourable returns. Renewable energy is often the fastest and most cost effective means by which to increase low levels of electrification that characterise much of the region and the integration of storage presents particular promise for island and remote areas over the next few years.

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*What do you think are the barriers to the proliferation of renewable energy in Asia?*

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While the prospects for renewable energy in Asia remain strong, a number of barriers exist. Government policies continue to favour non-renewable energy in many countries and electricity market structure and subsidies favour incumbent, centralised, fossil fuel generators; market reforms or RE incentive schemes are required to facilitate a more level playing field for renewable technologies. Lack of transparency in legal and regulatory matters and administrative burdens associated with approvals processes present some barriers to foreign investment in particular, and political risk – specifically, the winding back of renewable support schemes - remains a key concern. Technical knowledge and internal capacity in government agencies and development institutions is often lacking, and local financiers may be unfamiliar with renewable energy technologies, with more stringent funding requirements potentially increasing the costs of development projects.

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*What are the areas that DNVGL is most optimistic about in terms of renewable energy?*

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Renewable energy presents a flexible, rapidly deployable, increasingly cost effective and low carbon means to meet Asia's growing demand for energy. Support for RE will continue to be driven by the significant cost reductions experienced in recent years - most significantly in the cost of solar PV -, growing consensus on the climate science, concerns around energy security and recognition of broader economic, social and environmental benefits of RE. Particularly when combined with storage, RE has the potential to address technical, social and economic challenges associated with Asia's growing need for energy and overcome integration issues as RE penetration grows. Moreover, with growing demand from institutional investors for projects with positive social and environmental outcomes, an increasing amount of capital is available for investment in RE project in Asia.

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*How do you think smart grids are transforming the future cities of Asia? What are the game changers in terms of technology moving forward for Asia?*

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The electricity sector landscape and associated challenges vary across the region however there is a general recognition that smarter grid will be required as the energy system grows and the energy transformation accelerates. Smarter grid systems allow for increased efficiency and reliability, ultimately allowing maximisation and optimisation of renewable energy sources and facilitating a more efficient energy transformation while allowing for more active consumer participation and energy management. The application and focus of smart grid technologies will include improvements around, for example, metering, transmission and distribution automation and demand response management, though the applications will vary depending on the characteristics of different energy systems. Smart diagnostics are crucial and are likely to be a game changer going forward; diagnostics that are specific, meaningful, accurate, reliable and timely will provide a reliable base upon which smart grid features will operate.

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*How do you think utility business models are evolving in the face of the high penetration of renewable energy?*

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Traditional utility business models are very much threatened by renewable energy and distributed generation. Utilities have for some time enjoyed a monopoly and favourable policies and market structures that are changing as RE becomes increasingly competitive and market reforms and policy shifts in recognition of the need to decarbonise the electricity system are underway. Business models must evolve to capture the opportunities associated with RE and to integrate RE into the existing system. Novel approaches are emerging in Asia and globally; for example, third party ownership models for solar PV allow utilities to own and manage a portfolio of small rooftop systems distributed over thousands of rooftops.

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