

# POWER-GEN Asia Conference and Exhibition Kuala Lumpur 10 - 12<sup>th</sup> September 2014

## Highlights from ERM



# Introduction

POWERGEN Asia, co-located with Renewable Energy World Asia and the POWER GEN Asia Financial Forum, as part of the ASEAN Power Week 2014 in Kuala Lumpur, is the key platform for the power industry to meet, share information on the challenges facing the power industry and discuss solutions for advancing Asia's energy future.

Various factors including investor pressure, spiraling development costs and supply/demand dynamics are driving changes in priorities of the energy market in Asia. These changes include increased focus on capex spend, more caution around new markets/high cost development projects and the need to manage risk, compliance and reputation even more diligently. These come at a time when the growing power market in Asia is coming under pressure to reduce environmental impacts.

ERM attended the event as the Sustainability Sponsor and contributed thought leadership on a number of key themes which are creating challenges for our clients. ERM leaders spoke about managing non technical risks in project planning and execution and dealing with environmental and social risk in capital project development. They also chaired discussion sessions on geothermal developments and the environmental obligations of the power industry.

This document is our top line view of some of the key themes and observations from ASEAN Power Week 2014 and our insights. While this is not meant to be an exhaustive summary, we hope it stimulates some thoughts or reinforces some of your own thinking, which we would be happy to discuss with you.



**Sean Purdie, Managing Partner, Power, Asia Pacific**

# Observations and Insights

## *Power growth in Asia projected still to grow but faces hurdles to overcome environmental challenges*

Energy demand in Asia is still set to grow in the coming years and will increasingly face challenges on how to grow in an integrated and sustainable approach whilst overcoming environmental challenges. Water demand, climate change and waste and waste water generation are environmental impacts caused by traditional power generation and will become more significant in the future. The challenge for the power industry is how to use the technology available today to efficiently grow and minimize the potential environmental impacts.

*“Asia is on a growth trajectory ...largely fuelled by coal”*  
Nigel Blackaby,  
Director of Conferences,  
PennWell

*“Price remains the key driver....economics trumps environment ...in the current situation”*  
Joint Plenary Session  
Discussion

## *Coal is still the fuel of choice for Asia*

Coal remains the fuel of choice for the ASEAN power market driven by economics and favourable conditions for IPP development. Activity within the power market in Asia has picked up in recent years and the expectation is that it will continue to grow. The challenge for the industry is to minimize the potential impacts of coal use through end of pipe clean coal technology. Greater cooperation is needed across the region to share the clean coal technologies.

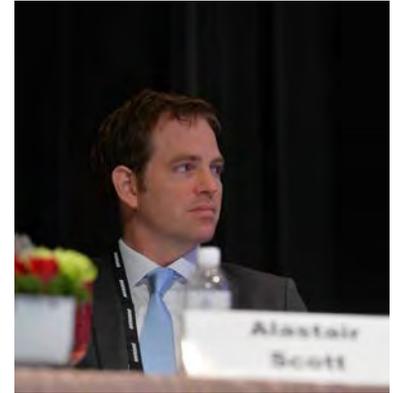
## *Renewables in Asia still need support and initiatives to further growth development*

Renewable energy will become a greater component of ASEAN's energy policy but still needs support, initiatives and research to overcome the cost advantages of traditional fossil fuel power plants as well as dealing with operational flexibility and intermittency issues. Government support to offset infrastructure capex costs, changes to legislation to allow for feed in tariffs and removal of electricity subsidies can encourage greater uptake of renewable technologies.

# ERM's Insights

## *Managing Non Technical Risk*

Alastair Scott, Managing Partner for ERM in Malaysia, Singapore and Vietnam outlined some of the non-technical risks associated with the environment and stakeholder concerns that ERM is seeing impact on the schedule of major energy project developments across the World. ERM's research showed that project developers tended to be much better at managing traditional financial, technical and commercial risks of their projects, but often do not apply the same amount of rigor to the risks that are caused by non-technical issues. The implications for IPPs can be significant in terms of delays and unanticipated additional costs. Often the delays associated with non-technical issues were longer than those from financial, technical or commercial risks as the resolution of the issues often lay beyond the direct control of the companies involved. ERM experience suggests that early identification of the potential non technical risks and their active management across the capital project life cycle is most likely to reduce the risk of delays to projects



*Alastair Scott, Managing Partner for Malaysia, Singapore and Vietnam*

## *Dealing with Environmental and Social Risks*



*Oliver Warner, Principal Consultant at ERM Singapore*

Oliver Warner, Principal Consultant at ERM Singapore noted that risks from environmental and social issues has been steadily growing, leading to delays, cost escalation and reputational damage. Globally, there is an increased awareness and interest in environmental and social risks, including by leading industry figures and politicians. Media has its part in the landscape, and with increased speed of information dissemination and globalization messaging when issues occur these can be picked up anywhere in the

world. Similarly, increased non-governmental organization (NGO) attention, and use of media channels, combined with increased environmental and social awareness can lead to heightened visibility and galvanizing of action through protests, directed at politicians, projects and developers. Compounding all of this is reputational risk. When left unmitigated it can undermine in a multitude of ways, both over both the short and long term through, tarnishing corporate standing, diminishing trust and impacting on financial performance. There are however practical steps can be taken to avoid environmental

and social risks at the outset of a Project, and through its lifecycle, including for banks the adoption of the Equator Principles.

### *Insights on Geothermal Energy*

Geothermal power has inherent environmental advantages and operational efficiencies but is obviously restricted to countries with active geothermal resources. Current active areas for geothermal development include Indonesia, Philippines and New Zealand. Potential future development could include Malaysia, China, Japan and Taiwan.

Front end development costs, primarily resource exploration including drilling of wells, is very expensive and is a barrier for geothermal project development. There are various initiatives under discussion and implementation in Asia Pacific to overcome these high front end costs.

Geothermal power is the best renewable technology for base load power generation with availabilities up to 98%.



*Sean Purdie, ERM Managing Partner for Power, Asia Pacific*

### *How is the Power Sector Meeting Its Obligations to the Environment?*

Sean Purdie also chaired a discussion session on how the power sector is meeting its obligations to the environment. Panel members included representatives from two regional IPPs, a China based green energy fund, Greenpeace and a technology advisory company.

The discussion was wide ranging with input from the audience and covered market distortions caused by subsidies, the increasing competitiveness of renewable technologies (e.g. the significant cost reduction in solar panel costs) and ways to actively encourage further investment in new, cleaner technologies while acknowledging that the majority of base load power will continue to come from conventional thermal sources.

# About ERM

With over 5,000 people in 40 countries, ERM has been advising energy sector clients for more than 40 years in the areas of entering new markets, capital project support, and operating in a safe, compliant and sustainable way. This includes using information solutions to improve transparency and corporate reporting, as well as advising on a firm's social performance, and asset retirement strategies. The range of work we do for our clients gives us a broad based and hands on perspective to many of the more pressing issues facing the power sector and hence a wealth of insights and advice we are happy to share.

To find out more how ERM can help you go to [www.erm.com](http://www.erm.com) or contact the following people in your region:

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Photos taken during ASEAN Power Week 2014 in Kuala Lumpur.

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