

# POWER-GEN Asia ASEAN Power Week 1 –3 September 2015 Bangkok, Thailand

## Highlights from ERM



Sean Purdie, ERM APAC Managing Partner for Power Sector at PowerGen Asia

# Introduction

POWER-GEN Asia 2015, as part of the ASEAN Power Week, was held in Bangkok on September 1-3, 2015. The event had over 7,000 participants attending the exhibition hall and over 800 delegates attending the conference proceedings, being the most attended PowerGen event in Asia Pacific.

Asia Pacific's primary energy demand is projected to increase at 2.1% per year between 2010 and 2035, much faster than the world's average of 1.5% according to the Asian Development Bank. As such, one of the greatest challenges for the Asian power sector is to diversify and increase its supply capacity on this growth path in a sustainable way. ERM has extensive experience advising both power sector lenders and developers across the project life cycle, from environmental permitting, environmental and social impact assessments (ESIAs), monitoring and compliance through to decommissioning, whether it is thermal or renewable energy including wind, solar, biomass and geothermal power. POWER-GEN Asia offers ERM the opportunity to have direct dialogue with clients such as utilities, independent power producers (IPPs), government agencies and engineering, procurement and construction companies (EPCs), and to assess challenges and solutions for advancing Asia's energy future.

Continuing with the theme from last year, ERM attended the conference as the Sustainability Sponsor for both the conference as well as the Gala Award Dinner. During the conference and exhibition client attendance was amongst the following:

- Major international and regional Independent Power Producers (IPPs) and utilities—approximately the same numbers as compared with last year;
- Private equity funds and smaller specialist developers—a significant increase from last year; and,
- EPC contractors, financing institutions and equipment suppliers—approximately the same numbers as compared with last year but more diverse.

ERM leaders from offices across Asia delivered keynote presentations, including insights to potential investors and developers of the environmental and social risks and management measures for power projects in Asia; and tips for project developers in overcoming challenges relating to land acquisition.

The next few pages summarise our thoughts and insights from the conference in more detail. We hope they stimulate or reinforce some of your own thinking, which we would be happy to discuss with you.



**Sean Purdie, Managing Partner (Power Sector)  
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 an integrated and sustainable approach whilst overcoming environmental challenges. Water demand, climate change, 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.

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

Coal remains the lowest cost fuel option for the ASEAN power market driven by developing economics. 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 minimise the impacts of fossil fuel use.

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

Renewable energy will become a greater component of ASEAN's energy policy driven by lower capital costs and improved technologies and reliability. However, the sector still calls for policy 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 fuel subsidies can encourage greater uptake of renewable technologies.

## *Emerging geographies for greenfield power*

Demand for greenfield new power development, whether by conventional or renewable energy, will mostly occur in Indonesia, Philippines, Myanmar, India, Bangladesh, Pakistan, Laos and Cambodia. ERM has proven experience and relations in these emerging countries.

# ERM's Insights



Oliver Warner, Principal Consultant at ERM Singapore, presenting the rationale and benefits for tackling environmental and social risks for power projects.

used to illustrate some of the points. All too often environmental and social issues are considered too late in a development, which can create problems for financiers and project developers. A thorough understanding of the standards that may be required and the potential environmental and social risks at the outset of the project (even if international financing is only being considered) will assist in making informed decisions and choices for the project development. The presentation ended with some practical thoughts and guidance for both lenders and project developers on how to consider and incorporate environmental and social requirements into project development.

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## *Managing Environmental and Social Risks*

Oliver Warner, Sustainable Finance Lead for Asia Pacific at ERM, provided some global context in relation to environmental and social risks in the realm of project development, and how they can affect project developers and then financiers causing credit risks, reputational risks and schedule issues. The Equator Principles were introduced as a part of a range of “soft law” standards that are available to assess, manage and reduce environmental & social risks. A case study for a power project development in Indonesia was

## *Country Spotlights – Chaired by Sean Purdie*

Sean Purdie, ERM Managing Partner for Power, Asia Pacific, chaired a discussion session on the diverse happenings occurring around the unique and complicated Asian power sector market. The session looked at new markets as well as some established markets to better understand the business environment. Topics included:

- *Thailand Power Market Overview: Moving towards Fuel Diversity*
- *Developing Power Projects in Myanmar*
- *Quantifying Investment Risk in the Philippines Power Market; and,*
- *Indonesia: A Gold Mine in a Mine Field*

All the above markets carry enormous potential, including the drive for increasing competitiveness of renewable technologies while base load power will continue to be dominated by conventional thermal power.

## *Land Acquisition for Power Sector: Case Study in Indonesia*

Adis Dewi, Senior Social Consultant at ERM Indonesia, presented in the “Project Issues and Challenges—Trends, Finance and Planning” session held on 2nd September. Power projects often encounter the need for land acquisition and implementing a smooth process has proven to be challenging in different jurisdictions. Using Indonesia as an example, Adis examined the land acquisition mechanisms for both government and private investment projects. Key challenges arising from land acquisition include but are not limited to lack of documentation and formal disclosure, difficulty in identifying vulnerable groups and lack of comprehensive monitoring and evaluation programme. To meet International Finance Corporation standards and avoid any dispute that will cost project delays, several strategies to accelerate land acquisition process and approaches to better prepare project team prior to implementation has been suggested.



Adis Dewi, Senior Social Consultant, speaking about land acquisition challenges in Indonesia.

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## *Reducing Existing Emissions – Chaired by Sean Purdie*

Sean Purdie also chaired a technical session focusing on new technologies available for emissions cleanup. Topics included:

- *Reversing Ash Buildup Problems in SCR Reactors with Ash Sweepers*
- *Wet Electrostatic Precipitator Designs to Achieve Ultra Low Particulate Emissions*
- *Using Agglomerative Dust Suppression and Wind Breaks for Fugitive Dust*

Based on the fact that conventional thermal power sources will continue to provide base load energy in the APAC region, these technologies are pivotal to minimizing emissions and provide for a cleaner environment.

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Sean Purdie, Managing Partner for Power Sector, Asia Pacific, welcoming guests at the ERM Sponsored Gala Dinner



# About ERM

With over 5,000 people in 40 countries, Environmental Resources Management (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 environmental and social sustainable way. This includes developing environmental, social and health impact assessments, 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.

Find out more by visiting [www.erm.com](http://www.erm.com) or contact the following people:



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