

# Transformer

Asia's New Energy Newsletter

Issue #1  
09/2015

AWR Lloyd's New Energy Practice is proud to introduce the inaugural issue of our monthly newsletter, *Transformer*. This month we cover:

## 02 Trends in Asian Renewable Energy Finance

## 13 Thailand Renewable Energy Market Update

Thailand has long been a leader in Southeast Asian renewable energy although recently the future of the industry has looked less clear. The new government has been active in energy reform and new plans have been announced. We discuss recent announcements and our expectations.

## 15 Transactions in New Energy: August 2015

A number of interesting transactions occurred this month in Asian RE. These included: a ~USD 1B private share issuance in China; major investments and partnerships that were announced in India and Japan; and activity in Philippines, Thailand, Singapore, and others.

## 17 Renewable Energy Finance by the Numbers

Each month, we present a summary of equity market listed financial metrics for RE focused companies as well as others that have significant RE investments. To ensure publication in time for distribution before POWER-GEN Asia (September 1-3), this month's report is as of 30/08.

In many ways, 2015 appears to be the year of Asian renewable energy as capacity has been planned and built at levels far above what had been recently considered realistic.

To better understand the latest developments, we prepared a presentation on **Trends in Asian Renewable Energy Finance** for the POWER-GEN Asia 2015 Financial Forum - included here in full. In it, we seek to answer the questions:

- What is the current state of Asian RE finance?
- What key developments are likely to shape the future?

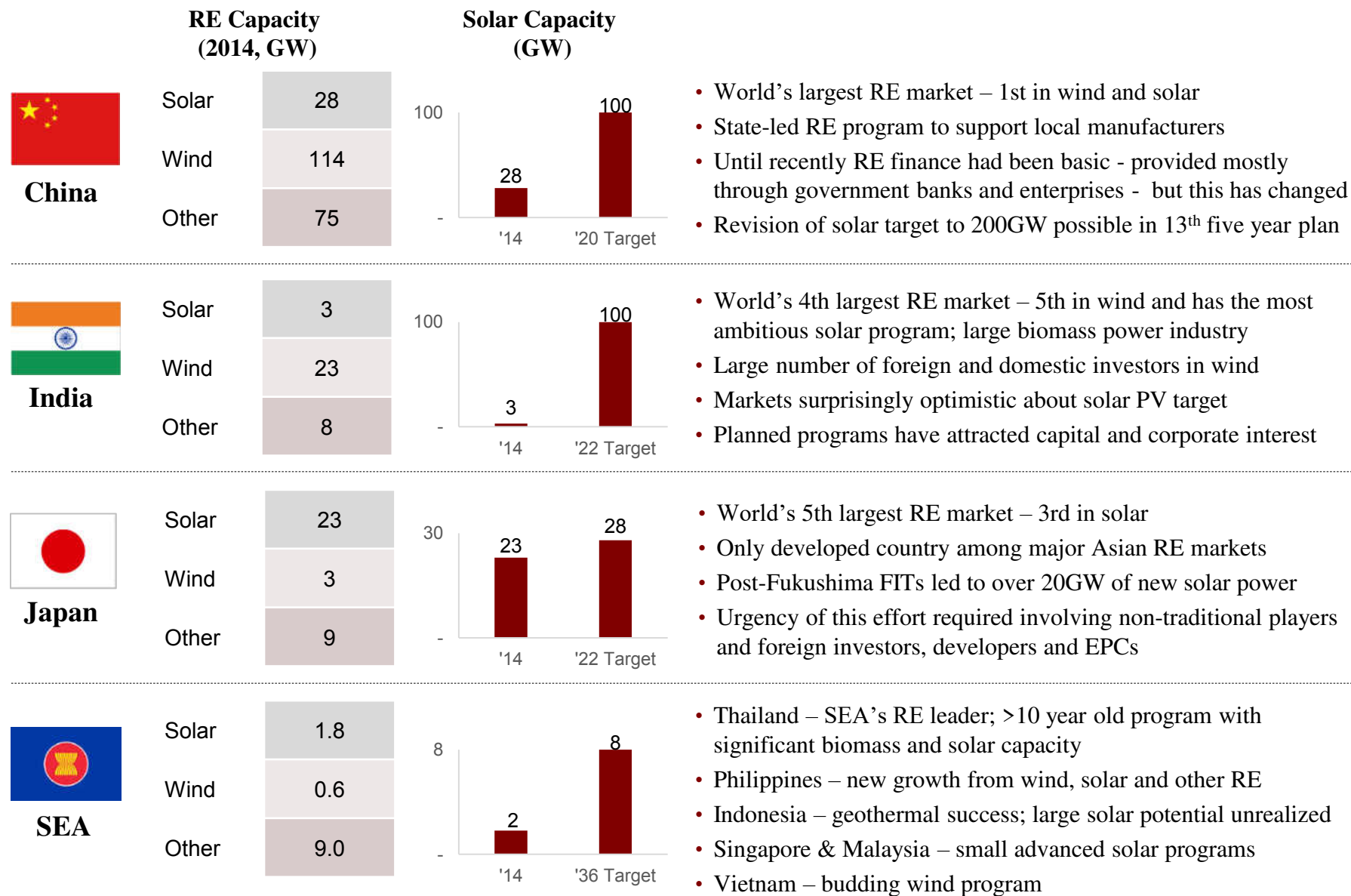
Our analysis focuses on trends in China, India, Japan and South East Asia. We conclude that Asia RE finance markets have matured significantly in recent years, but there is still a lot left to come.

**AWR Lloyd**, founded in 2000, is a strategy consulting and financial advisory firm that specializes in the energy, resources, and infrastructure sectors in the Asia-Pacific region ([www.awrlloyd.com](http://www.awrlloyd.com)).

Our **New Energy Practice** focuses on helping clients conceive and execute winning strategies in renewable energy, natural gas, and related industries that are experiencing exceptional growth.

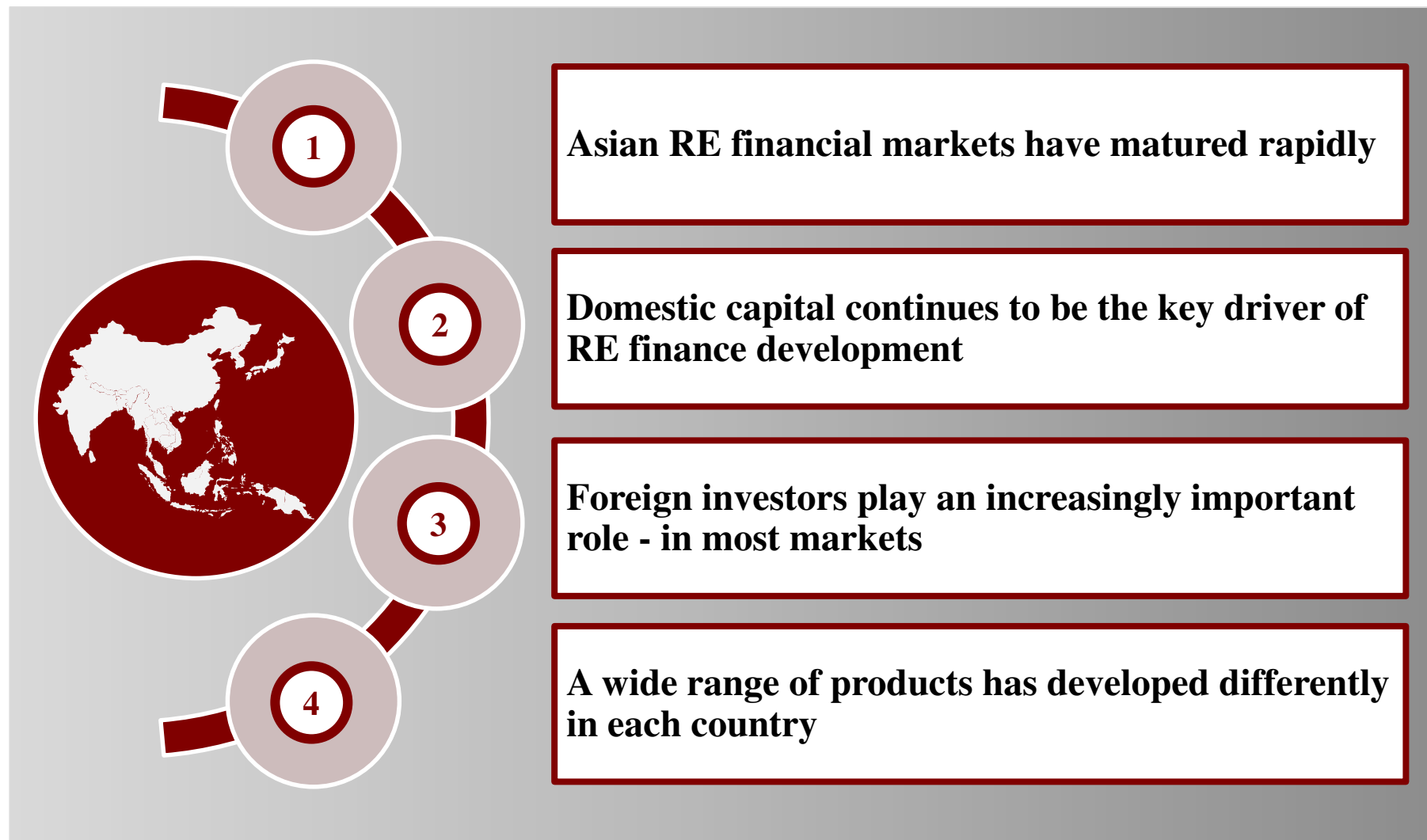
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# Asia is large and diverse – so is its RE finance market



Source: BP, Ren21, AWR Lloyd research

## We observe four key trends in Asian RE finance

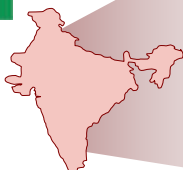


## Asian RE financial markets have matured rapidly

In recent years, industry participants Asia-wide have reacted very quickly to RE growth, developing project and finance structures appropriate to each country. Now, multi-country and intra-Asia strategies are emerging



- Government funding went primarily to large state-owned power companies
- May still have <5% foreign direct project ownership and <5% core equipment, but >20% equity ownership
- A set of smaller listed RE companies have developed market share and raised significant capital
- Financing sophistication increasing, with large number of providers and a unique set of products



- Started with wind c. 2000; financed by local capital - on balance sheet and with development bank support
- Turning point in late 2000's with foreign and local players committing equity and mezzanine finance
- Solar targets attracting multi-billion dollar capital commitments from local and foreign sources
- Developed early track record of non-recourse finance that will support future solar development

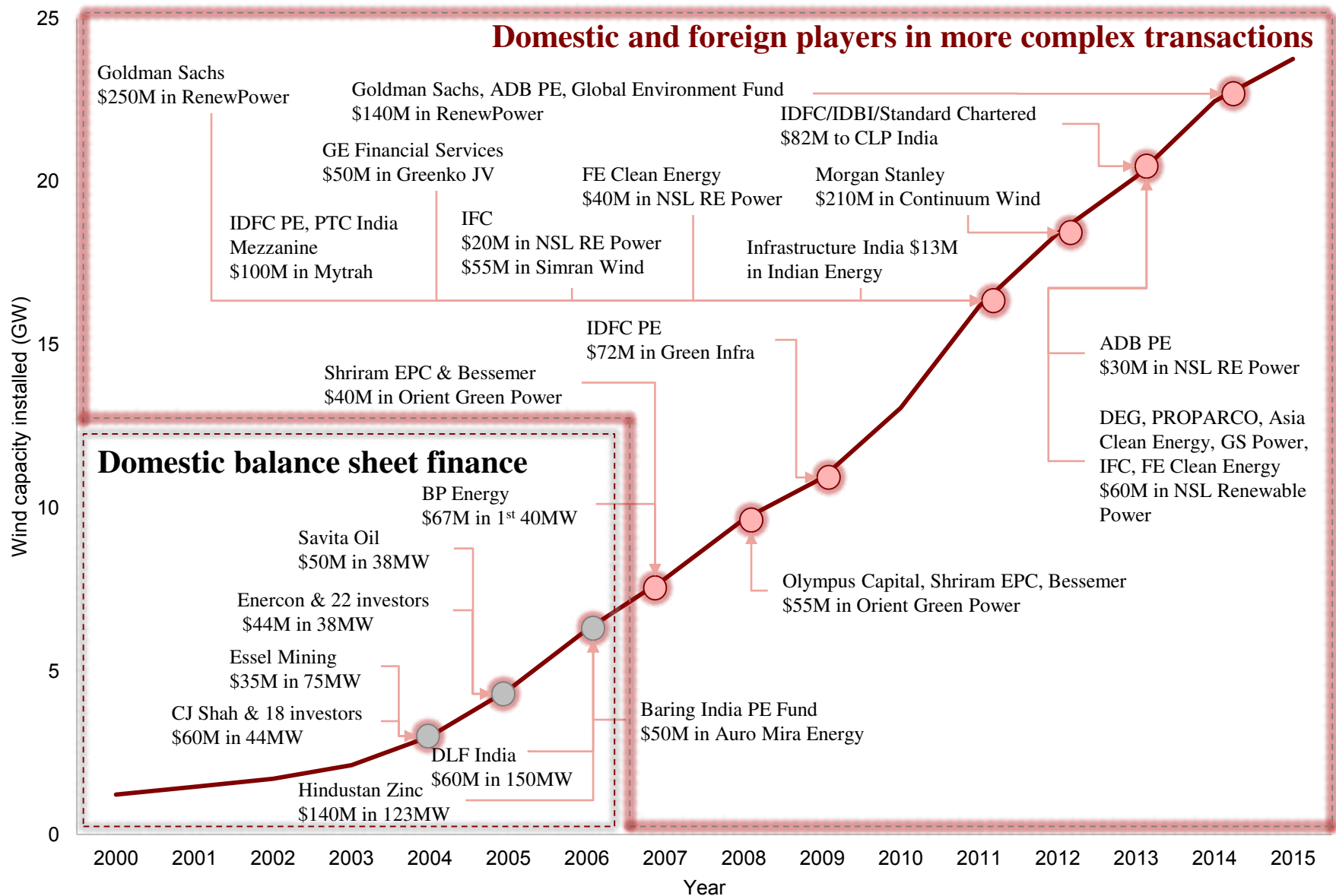


- Wind and solar both at c. 2GW in 2008; solar now 10 times larger and wind plateaued
- Rapid solar growth has led to an enormous demand for appropriate financial products
- This overran domestic capability, opening up opportunities for foreign companies and investors
- Large residential solar with double US number of installations in 2014, but minority of total GW production



- Thailand had an early biomass sector funded mostly on balance sheet. Domestic banks have provided almost all solar project debt in recourse and non-recourse forms. Wind was initially funded via mezzanine products
- Philippines is in the early stages of a diverse and growing market with a strengthened regulatory structure
- Indonesia's 330MW Sarulla geothermal project received \$1.6B in project finance

# Case Study: India wind finance has become sophisticated



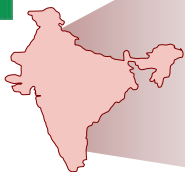
Source: AWR Lloyd research

## Domestic capital continues to be the key driver of RE finance development

Across Asian countries, domestic players have led the development of projects as well as creating bespoke financial products that have supported the massive Asian RE roll-out



- Active RE equity market - 6 state owned power cos have 80% & \$100B mkt cap
- Wind saw the first pure private sector investment before 2006 - then grew rapidly
- 2012-2013 solar reforms made projects commercially viable enabling smaller pure play RE to raise capital through listed vehicles
- Their need for project financing drove financial sector growth and sophistication



- Local capital has been involved since early days of RE, building up wind sector
- Domestic players set to participate in new solar with 10 GW + of commitments
- Both wind and solar sectors remain disaggregated with no clear dominant player
- Companies that are not traditionally in power are also turning to RE



- Domestic players had limited capability for utility scale solar before 2012
- Local capacity evolved quickly with a plethora of large and small Japanese companies involved in a wide range of business models
- Sector disaggregated with ownership spread across multiple companies



- Thailand – Had several large biomass players that did not transition into other RE; >70% of solar and wind assets owned by domestic listed companies
- Philippines – strong domestic players emerging
- Singapore – local developers active in sophisticated rooftop program



## Case study: Similar companies, different environments

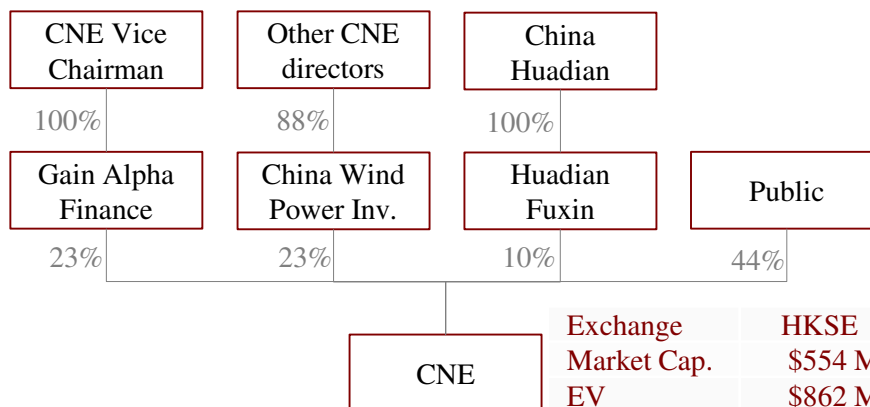


### Concord New Energy



- Formed as China Pharmaceuticals, later changed to China Wind Power. Manufactures wind tower tube equipment
- Formed wide range of domestic partnerships to pursue wind in early 2000s; Partnered with GE in 2010 for O&M business
- 2011 first solar project produced power; ADB granted \$120M long term loan facility
- In 2014 Huadian Fuxin (China Huadian Corp.) acquired 10% share to co-develop China wind and solar projects
- In June 2014 secured exclusive development rights for 28GW of wind and 8GW in solar power

Wind	Solar	Others	Total
632MW	326MW	-	958MW

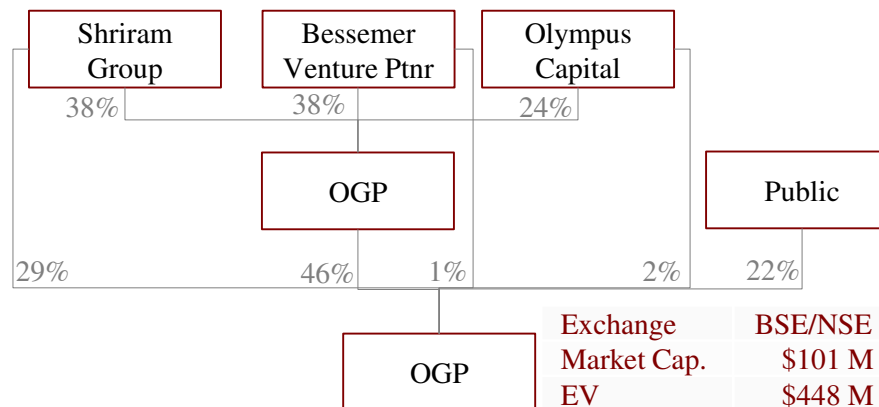


### Orient Green Power



- Formed in Chennai, Tamil Nadu in 2007 by Shriram EPC and Bessemer Ventures Partners to develop RE projects
- Early mover in Indian wind in 2006 - developer and operator of wind, biomass, and small hydro power plants
- 2008 Olympus invested \$35 M
- Has plans to develop 1GW of renewable energy projects
- Currently only in India but looking to expand geographically
- Issued equity shares to expand wind and retire debt; subscribed by local investment banks and funds

Wind	Biomass	Others	Total
429MW	106MW	15MW	550MW

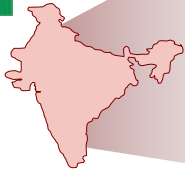


## Foreign investors play an increasingly important role - in most markets

Foreign capital and capability has been involved in Asian RE markets for years, providing a wide range of equity and debt funding in specific niches



- Small foreign participation in Wind as early as 2006
- Foreign interest in solar growing as projects become increasingly commercial, although jury is still out
- Significant foreign participation in sector through equity in listed companies



- Foreigners have been developing Indian RE for about a decade
- Large number of foreign firms hold RE assets, mostly wind
- Solar sector attracting unprecedented levels of foreign commitments
- Foreign capital has exposure to market through two UK listed pure RE stocks



- Foreign capital plays a crucial role in funding projects
- Regulatory framework enables deep and broad foreign participation in RE sector
- Several foreign investors developing large portfolios
- Numerous others, including Thai companies, have Japanese assets



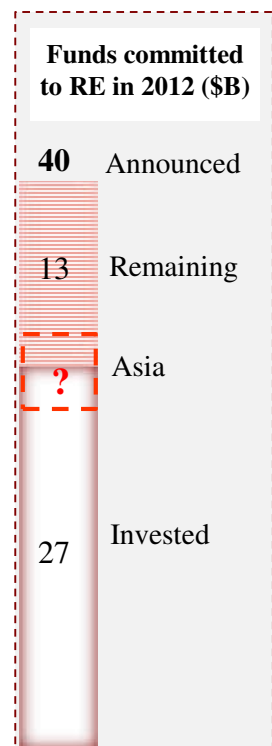
- Thailand – foreign companies have played an important role in the RE sector but currently own a minority of assets
- Philippines – foreign players actively pursuing and developing projects
- Indonesia – five foreign banks in Sarulla (BTMU, Mizuho, SocGen, ING, JICA)
- Vietnam – foreign investors likely to play role in wind power pipeline



## Case Study: Goldman Sachs is a leader among foreign RE investors

- Early mover in RE markets in India (2011) and Japan (2012) through direct investments
- Through investments in ReNew and Mytrah GS has exposure to some of the larger RE players in India
- Invested in Japan by establishing Japan Renewable Energy (JRE), an IPP, and committing an additional \$3.1B from GS Infrastructure Partners II fund
- Cautiously moving into China RE with financial products

Plans to invest \$100M in convertible bond with a right to buy 45% of a business that will acquire solar plants



>\$300M in ReNew Power; 1GW wind and solar expected by 2016

'11 '12 '13 '14 '15

Invested in Mytrah; fully funded 350MW pipeline

250MW operating solar projects including 1.4MW rooftop

Targeting additional 100MW over 3-5 years

545MW operating wind projects; 14 sites over 4 states; additional sites planned



Established JRE and pledged to invest \$487M

First rates securitization through JRE Mega Solar Project Bond for \$14M

'11 '12 '13 '14 '15

\$50M investment with SunSeap, Singapore's largest solar leasing company

JRE COD 56MW Solar and plans \$1B clean energy bond  
Acquires biomass power developer Eco Green for \$8M

16MW wind plant acquired by JRE from Sumitomo

'11 '12 '13 '14 '15

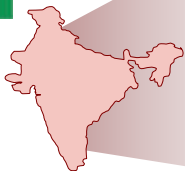
## A wide range of products has developed differently in each country

Eager entrepreneurs and providers of capital have developed a wide range of appropriate financial products that match the different requirements across countries



Funding constraints in the post crash period of 2010-12 forced developers to use creative strategies, particularly in solar

- Large number of financial institutions committed to fund multiple projects
- Convertible bonds issuance to fund projects picked up from 2013
- Leasing and vendor finance offsetting unavailability of non-recourse debt



Supportive regulatory framework enabled domestic and foreign investors to utilize appropriate traditional financing products

- Government-backed institutions actively support project funding
- Development banks and multilaterals played key catalytic roles
- Mezzanine, project finance, and other products frequently employed



Domestic and foreign capital providers have begun to develop a set of financial products appropriate for the market size and composition

- Japanese banks evolved from recourse to non-recourse often in syndicates
- Larger financial framework agreements that leverage larger volumes of capital
- Growing variety of finance options targeting the burgeoning PV rooftop segment

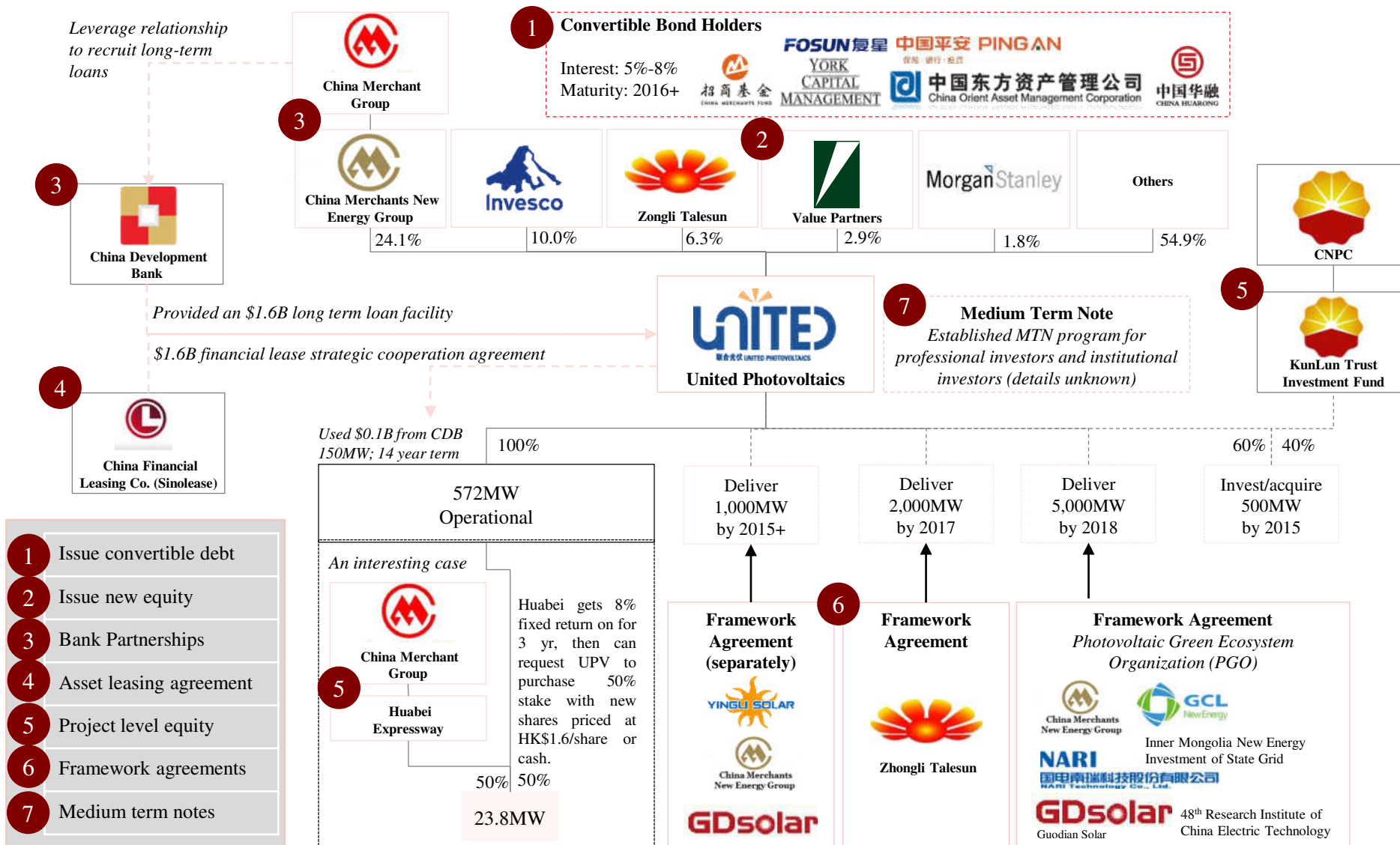


Thailand – Traditional financial products commonly employed to fund projects, large stock market listed participation by RE companies

- Philippines – Non-recourse finance available for national power producers; access to traditional finance products for new RE players is scarce, bridge funding for construction is happening and is an important step in creating product availability



# Case Study: United Photovoltaics - no one said it would be easy



- 1 Issue convertible debt
- 2 Issue new equity
- 3 Bank Partnerships
- 4 Asset leasing agreement
- 5 Project level equity
- 6 Framework agreements
- 7 Medium term notes

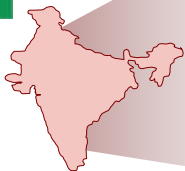
Acquire projects at 9% project IRR; project developer pledge deposits to guarantee production of 7 to 10 yr, if production falls short, UPV deducts deposits

# The Future: Asian RE finance - evolution just getting started

The next few years are poised to be extremely interesting ones in Asian RE finance - key developments are likely to include: sector aggregation, M&A, institutional investors, larger structures, and post FIT business models



- Extent of future private capital participation depends on clarity over commercial viability of projects
- Progress on infrastructure and regulatory improvements is crucial to sector's future
- Large solar project pipelines are being aggregated and prepared for funding
- First green bond issuance, \$300 M Xinjiang Goldwind, may be trendsetter



- Massive capital, such as SoftBank's \$20 B, is lined up to accelerate solar PV growth
- Government initiatives including common dollar hedging and land acquisition will drive growth
- Solar PV may be the most effective way to supply new power in a wide range of cases including rooftops
- Future sector aggregation may lead to M&A opportunities



- Plans to achieve 2030 solar target of 64GW face challenges from congestion, space, and nuclear power restart
- Rooftop solar PV to increase with storage coupling possible
- TSE Infrastructure Fund Market, pension funds, and green bonds may be new vehicles for large scale capital
- Future sector aggregation may lead to M&A opportunities



- Thailand – Little visibility on new utility scale solar programs; transmission capacity seen as constraint for all RE; auctions currently planned for biomass and biogas, later rounds likely to include wind and solar.
- Philippines – Potentially new source of significant opportunities in wind, solar, and other RE
- Southeast Asia poised for growth at lower scale

# Thailand renewable energy market update

## New Power Development Plan and Alternative Energy Development Plan

In May 2015, the Thai government approved the new Power Development Plan (PDP), with an outlook to 2036. This is the first PDP since 2010, incorporating the significant growth of renewables in the last 5 years. With this PDP the Ministry of Energy also integrates other energy plans that were previously developed independently, such as the Alternative Energy Development Plan (AEDP) and Energy Efficiency Development Plan (EEDP).

Under the PDP the aim is to:

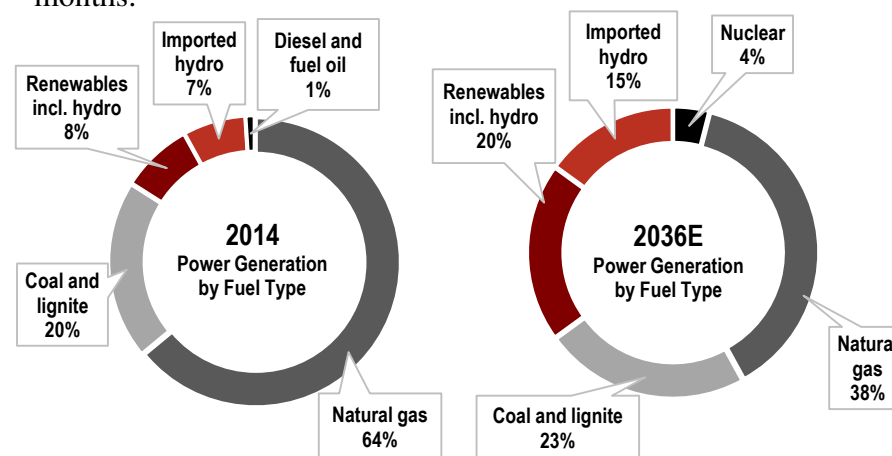
- Reduce dependence on natural gas for power generation, from 64% to 30-40% by 2036
- Increase the share of RE in total power mix to 15-20%, with capacity reaching 20GW by 2036
- Increase the share of coal and lignite from 20% to 20-25% in 2036, with an unspecified amount to be delivered as ‘clean coal’ by carbon capture and storage technology
- Increase the share of imported power from neighboring countries from 7% to 15-20%
- Increase contribution from nuclear power to 5% towards the end of the PDP2015 period

For power from renewable energy, the key points of the AEDP include:

- Prioritize power generation from waste, biomass and biogas
- Regional segregation of RE targets to match local grid capacity
- New solar and wind programs at a later stage “once the cost is competitive with LNG”

- Competitive bidding with Feed-In Tariffs (FIT) as ceiling instead of first-come first-serve

To meet these targets, a number of new programs and regulations are being formulated and expected to be announced in the coming months.



Unit: MW	2014		2036 Target	
	Capacity	Share	Capacity	Share
Solar	1,299	17%	6,000	31%
Biomass	2,542	34%	5,570	28%
Hydro	3,048	41%	3,282	17%
Wind	225	3%	3,002	15%
Energy crops	0	0%	680	3%
Biogas	312	4%	600	3%
Waste	66	1%	500	3%
<b>Total</b>	<b>7,490</b>	<b>100%</b>	<b>19,634</b>	<b>100%</b>

# Thailand renewable energy market update

## ERC announces regulations for 800MW government and agricultural cooperative solar program

In August the Energy Regulatory Commission (ERC) provided specific regulations for the previously announced 800 MW solar program for government agencies and agricultural cooperatives. As earlier announced, these ground-mounted projects have a capacity limit of 5 MW per project and will receive a fixed Feed-in Tariff (FIT) of 5.66 Baht per kWh for 25 years.

Key points of the announcement:

- Total available capacity is split in two categories: 400 MW with government agencies & 400 MW with agricultural cooperatives
- Two phases: (1) 600 MW with COD not later than 30 Sept 2016; (2) 200 MW with COD in the first half of 2018

Regional allocation of targets for the first phase are below. For each region, capacity is further segregated by substation. Application process for Phase 1 to start November 1, with announcement of the winning bids on December 24.

### Phase 1: Regional allocation for 600MW

Area	Allocation (MW)
Bangkok and vicinity	200
<b>Regions</b>	
North	5
Northeast	-
South	-
East	98
West	159
Central	138
<b>Total</b>	<b>600</b>

## New Energy Minister

General Anantaporn Kanchanarat, comptroller for the Royal Thai Army, was appointed as Minister of Energy in August, replacing Mr. Narongchai Akrasanee who handled the portfolio since August 2014. Gen. Kanchanarat previously held the board seat at Thai Airways following the 2014 coup and was appointed as a director at Krung Thai Bank. Gen. Kanchanarat is considered a corruption fighter and is Head of the State Budget Monitoring and Scrutinizing Committee. He has expressed commitment for continued support for RE, with a focus on biomass, biogas, and waste-to-energy projects in the short-term.

### Our views

After significant RE capacity additions in the last ten years, utilities now see transmission as a major constraint for adding capacity. Under the new program, applications need to match substation capacity. This explains the focus on biomass and biogas that have higher FITs for lower capacities to match local transmission availability.

The AEDP indicates that new bidding programs for solar and wind will occur 'once these are competitive with LNG'. We expect that marginal new power from LNG will cost Baht 5-6 per kWh to produce, making most solar PV projects already meet this criteria.

In this regard, RE is in our view the most cost effective way to reduce Thailand's dependency on natural gas. We expect growth to return with more frequent bidding rounds and larger capacity for all RE following transmission upgrades.

# Transactions in New Energy - August 2015

Date	Country	Type	Energy	Capital to	Capital from	Value	Comments
Aug 26	Sri Lanka	Partnership	Tidal	Sri Lanka	Blackbird International & Help Mankind		Agreement for development of initial 10 MW power plant to sell power to Ceylon Electricity Board
Aug 25	China	M&A	Solar	Shanghai Aerospace	n/a	\$ 18 M	Stake in 50 MW plant in Shanxi province to be sold through a public bidding process.
Aug 25	Singapore	Partnership	Mixed	Southeast Asia	Denham Capital & Nexif Energy	\$ 200 M	Partnership to develop and acquire conventional and RE power assets across Southeast Asia, investing more than \$200 million
Aug 22	China	Debt	Wind	China Longyuan Power Group Corp Ltd	HKSE	\$ 156 M	90-day debentures with a coupon of 2.8% to replenish working capital and reduce debt
Aug 20	Thailand	M&A	Mixed	Northern Renewable Energy	Shun Thai Rubber	\$ 9 M	Acquisition of 3.1 million ordinary shares from current shareholders
Aug 19	India	Equity	Mixed	Orient Green Power Co. Ltd.	SVL, EW Special Opp. Fund, Ecap Sec., Forefront Capital Mgmt	\$ 38 M	Preferential shares offered to 4 investors, to fund expansion of wind portfolio and to retire high cost debt
Aug 19	India & others	Finance	Solar	Zynergy	Kohli Ventures		"Multi-million dollar" investment in developers group with projects
Aug 19	Philippines	Partnership	Solar	Philippines	Aboitiz & SunEdison	\$ 76 M	Maaraw Holdings jointly owned by Aboitiz (60%) and SunEdison (40%) to develop 59 MW project in San Carlos City, Negros Occidental
Aug 18	Philippines	M&A	Mixed	Jobin-Sqm Inc	Emerging Power Inc		Purchase of 90% stake, for 100 MW solar, 50 MW wind at Mount Santa Rita, the Zambales Mountains
Aug 18	India	Partnership	Solar	India	Hareon Solar & Nereus Capital and Treasury Group		JV to develop 32 MW of projects
Aug 15	Philippines	Debt	Mixed	SMC Global Power Holdings	n/a		Energy unit of San Miguel Corp. looking to raise an undisclosed amount of funds by selling US\$ dollar denominated bonds
Aug 14	China	Debt	Solar	Singyes Solar	Hang Seng Bank & HSBC	\$ 100 M	Loan facility arranged by banks to build position in solar EPC and green buildings in Asia

Source: Bloomberg, AWR Lloyd research



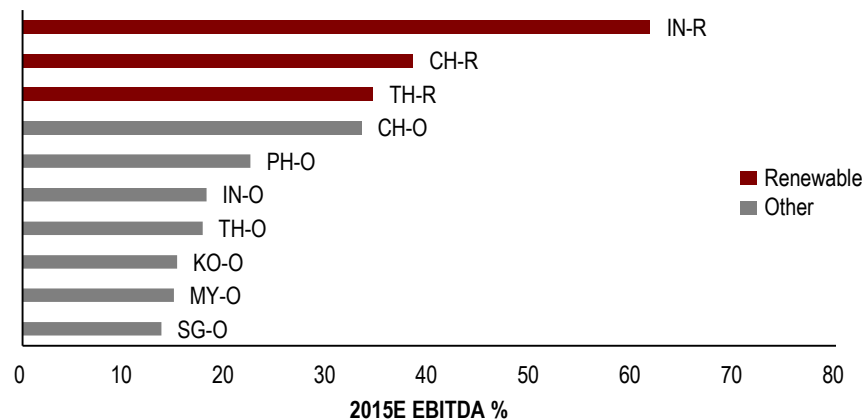
## Transactions in New Energy - August 2015

Date	Country	Type	Energy	Capital to	Capital from	Value	Comments
Aug 14	India	M&A	Mixed	Greenko	Government of Singapore Inv. Corp.	\$ 254 M	GIC intends to purchase Greenko's stake in its Mauritius-based holding firm for Indian assets
Aug 13	China	Equity	Mixed	Hubei Energy Group Co., Ltd.	China Three Gorges Corp. & Shaanxi Cola and Chemical Industry	\$ 945 M	Private issuing of shares; CTG to become to Hubei biggest shareholder and to inject wind assets.
Aug 11	Malaysia	Debt	Hydro	Kerian Energy	Malaysia Debt Ventures & Bank Islam Malaysia	\$ 29 M	Signed a syndicated loan to finance 'Kerian Energy's 14 MW hydro project
Aug 11	India	M&A	Wind	Bharat Light & Power	Enel Green Power	\$ 56 M	Initial transaction to acquire majority stake in BLP through multiple tranches, to support development of 170 MW wind portfolio
Aug 10	India	Debt	Wind	Mytrah Energy	Not disclosed	\$ 95 M	Mytrah Energy secures loan to fund 100 MW wind capacity in Telangana
Aug 10	India	M&A	Solar	Amplus Energy Solutions Pvt Ltd	I Squared Capital	\$ 150 M	Equity investment in owner and operator of rooftop projects, to be used to grow operations in India and Asia
Aug 9	Laos	Project Dev	Wind	Laos	Impact Energy Asia		Signs agreement with the Lao government to develop 600 MW project
Aug 5	India	Debt	Mixed	Yes Bank	IFC	\$ 48 M	Private placement of 10-year green infrastructure bonds to finance projects such as solar and wind projects
Aug 4	India	Debt	Mixed	IFC	LSE	\$ 49 M	Rupee bonds listed on the London Stock Exchange dubbed 'Masala' bonds, for private investments addressing climate change
Aug 4	Japan	Partnership	Solar	Japan	Hudson Clean Energy Partners & Adendum Energy Capital	\$ 300 M	Form a joint partnership to invest in utility-scale PV projects
Aug 4	China	Project Dev	Solar	China	United Photovoltaics		Acquisition of development rights of 100 MW ground-mounted PV projects in Datong, Shanxi Province

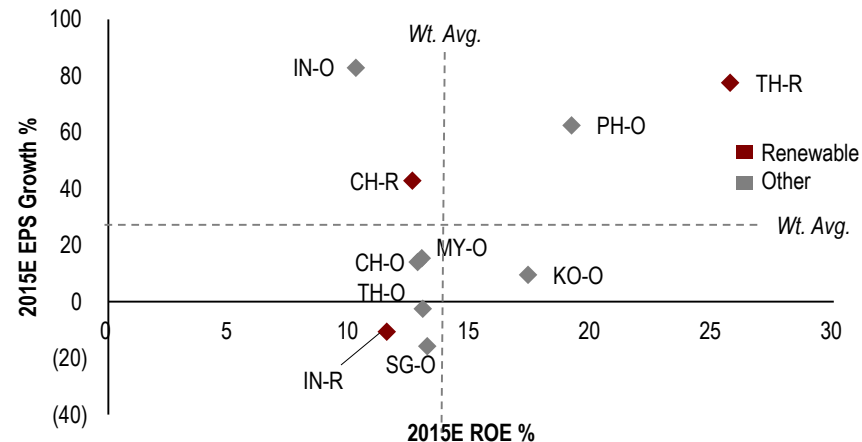
Source: Bloomberg, AWR Lloyd research

# Asia Overview – Profitability, Growth, and Valuation

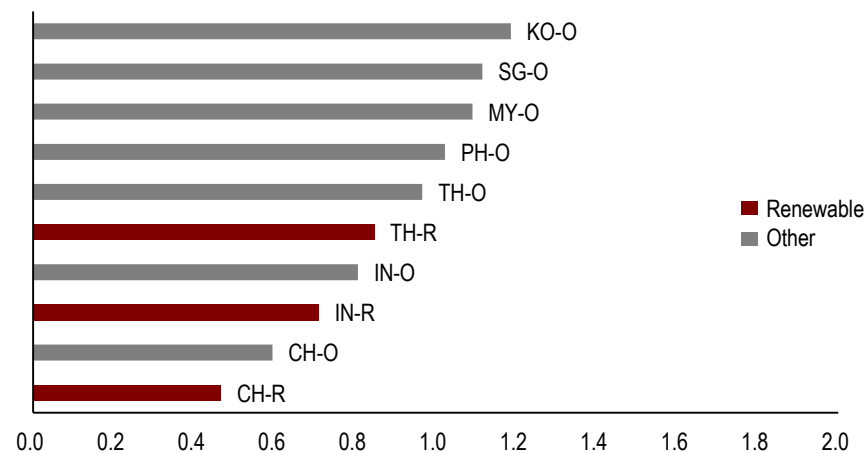
## EBITDA Margin



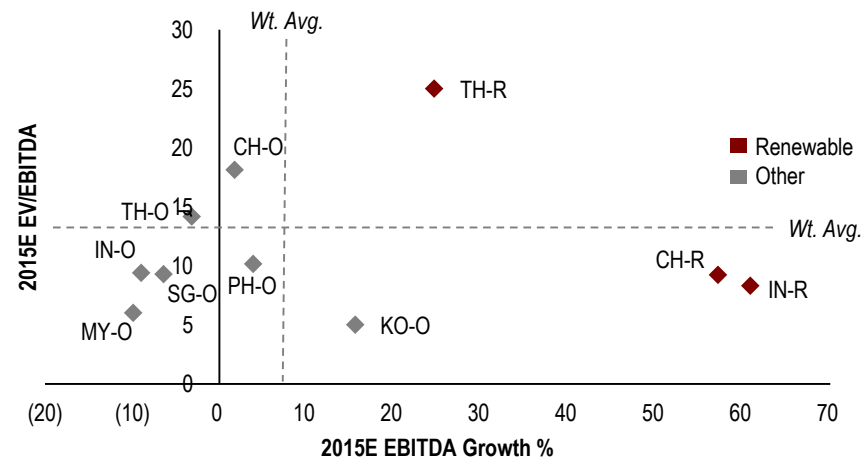
## EPS Growth vs Estimated ROE



## Equity Beta (Two-Year)



## Valuation vs Profitability

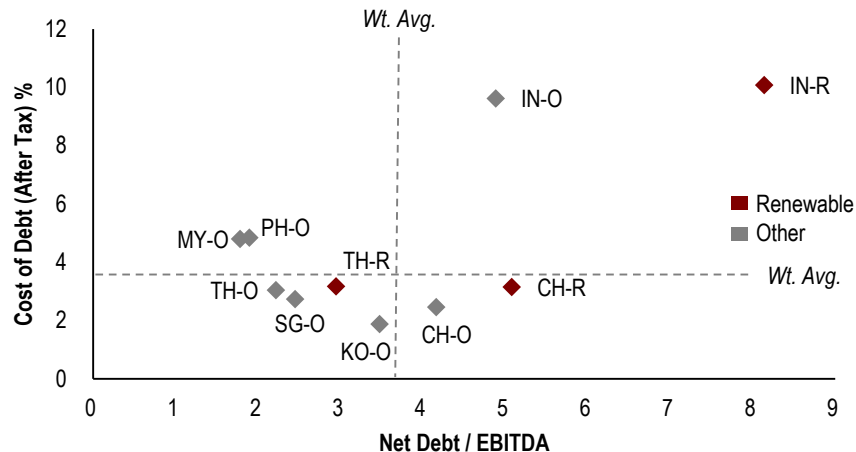


Key	China	India	Thailand	Philippines	Malaysia	Singapore	Korea
Renewable	CH-R	IN-R	TH-R	n.a.	n.a.	n.a.	n.a.
Other	CH-O	IN-O	TH-O	PH-O	MY-O	SG-O	KO-O

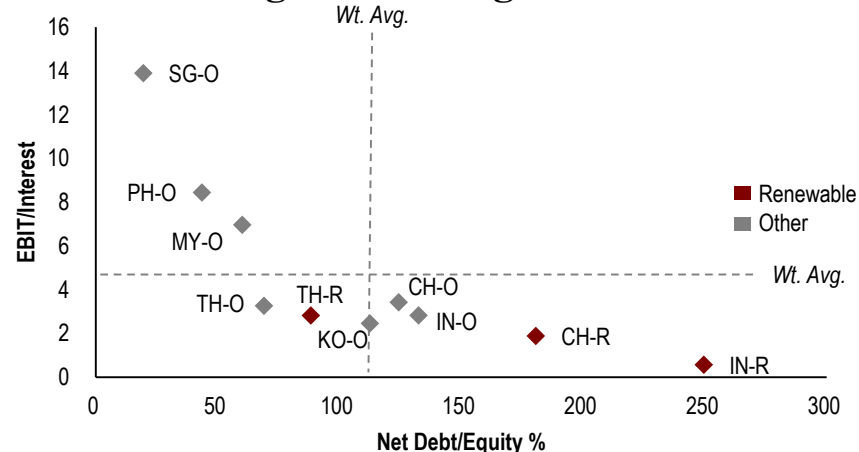
Note: Information as of 30/08/2015, unless stated otherwise  
Source: Bloomberg, AWR Lloyd analysis

# Asia Overview – Capital Structure, Stock Performance and Risk

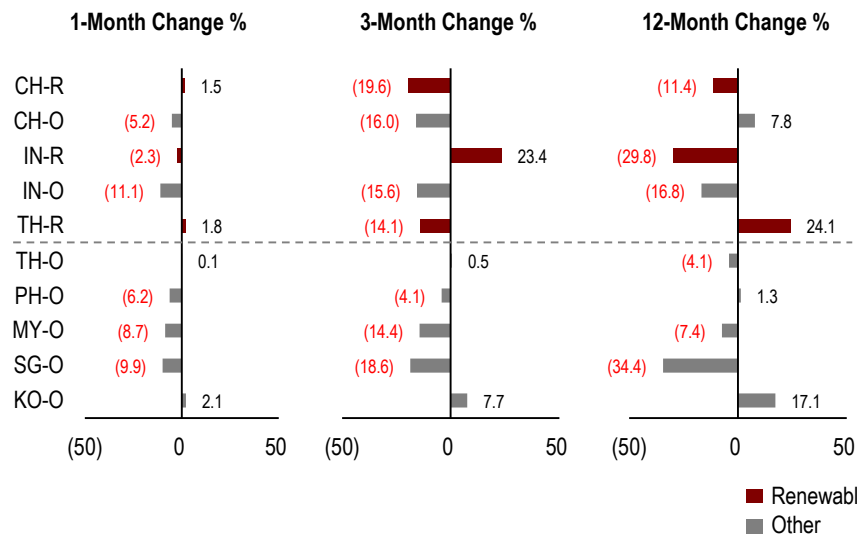
## Cost of Debt vs Net Debt/EBITDA



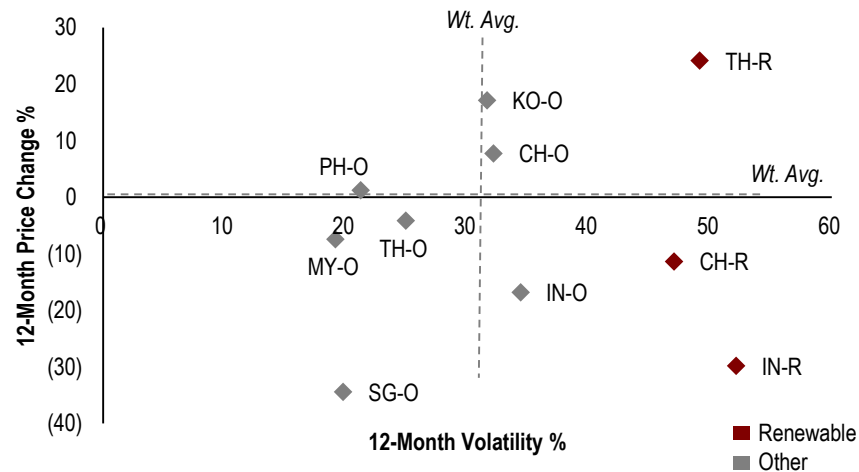
## Interest Coverage vs Leverage



## 1, 3 and 12-Month Price Changes



## Return vs Risk



Note: Information as of 30/08/2015, unless stated otherwise; Volatility % is based on standard deviation of daily historical price changes

Source: Bloomberg, AWR Lloyd analysis

# Profitability and Growth – China and India

Company Name		Mkt <sup>1</sup> Cap USD M	EBITDA Margin 2015E %	EBIT Margin 2015E %	Net Margin 2015E %	ROE 2014A %	ROE 2015E %	ROA 2014A %	ROA 2015E %	EPS Gr. 2014A %	EPS Gr. 2015E %
CH-R	Beijing Jingneng Clean Energy Co	2,030.1	33.4	19.7	14.1	10.4	14.4	2.8	4.2	(0.3)	59.8
	CECEP Wind-Power Corp	7,588.6	-	-	-	6.1	-	1.4	-	(9.0)	-
	China Longyuan Power Group	8,679.2	66.8	40.6	18.0	8.0	11.0	2.2	3.6	24.7	-
	China Singyes Solar Tech. Hldg	474.4	18.3	16.3	10.4	20.4	20.0	8.1	7.8	12.0	-
	Concord New Energy Group	554.1	18.0	15.2	10.4	6.0	7.8	3.1	4.4	78.3	52.8
	GCL New Energy Hldg	868.1	50.5	29.6	13.7	(52.2)	9.8	(11.5)	1.9	2.5	-
	Huaneng Renewables Corp	3,577.3	88.3	54.7	22.2	7.4	10.5	1.7	2.2	16.2	-
	Shunfeng Inter. Clean Energy	967.1	44.4	21.3	14.2	33.1	31.8	8.5	-	-	24.6
	United Photovoltaics Group	422.1	104.5	59.8	23.1	32.3	14.2	4.9	2.8	-	(10.0)
<b>Average (weighted by mkt cap.)</b>			<b>63.3</b>	<b>38.4</b>	<b>17.7</b>	<b>7.0</b>	<b>12.6</b>	<b>1.9</b>	<b>3.4</b>	<b>10.7</b>	<b>42.8</b>
CH-O	China Power International Devel.	4,792.3	46.6	32.2	16.5	13.7	14.9	3.5	4.3	5.0	-
	China Resources Power Hldg Co	11,704.3	41.9	28.3	17.2	13.6	16.1	4.4	5.8	(16.4)	-
	CLP Hldg	20,863.3	23.4	16.3	11.6	12.8	12.1	5.3	5.3	85.0	-
	Datang Inter. Power Gen. Co	9,986.1	39.9	22.2	6.3	4.0	8.6	0.6	1.9	(50.0)	(21.3)
	GD Power Development Co	13,257.1	45.2	26.5	10.9	14.2	12.9	2.5	2.6	(3.3)	(11.3)
	HK Electric Investments	6,122.6	72.9	47.0	30.0	10.4	6.8	3.9	3.3	(90.9)	(2.8)
	Huadian Power International Corp	9,466.4	37.5	25.0	10.2	21.8	18.4	3.3	4.1	33.6	30.4
	Huaneng Power International Inc	18,898.5	32.3	21.9	10.5	16.2	18.6	4.0	5.1	2.7	47.8
	Power Assets Hldg	18,395.7	78.8	78.7	468.9	63.4	6.2	50.5	5.6	446.5	-
<b>Average (weighted by mkt cap.)</b>			<b>44.6</b>	<b>33.4</b>	<b>86.7</b>	<b>21.7</b>	<b>12.8</b>	<b>11.3</b>	<b>4.5</b>	<b>80.1</b>	<b>14.1</b>
IN-R	Greenko Group PLC	184.9	83.0	61.4	12.2	-	7.2	-	-	-	-
	Mytrah Energy	182.3	90.5	62.1	10.2	2.7	15.9	0.3	-	(72.8)	(10.7)
	Orient Green Power Co	101.8	-	-	-	(24.8)	-	(6.9)	-	(122.1)	-
	<b>Average (weighted by mkt cap.)</b>			<b>86.7</b>	<b>61.7</b>	<b>11.2</b>	<b>(7.1)</b>	<b>11.5</b>	<b>(2.3)</b>	<b>-</b>	<b>(90.5)</b>
IN-O	Adani Enterprises	1,282.4	5.7	3.4	3.4	7.9	9.3	1.6	1.5	37.6	(11.0)
	CESC	1,049.0	20.4	14.0	3.8	3.4	6.3	0.8	1.5	7.0	-
	Gujarat Industries Power Co	165.9	31.4	22.2	14.3	7.0	9.9	4.2	-	(15.1)	53.2
	Jaiprakash Power Ventures	262.1	57.2	42.2	1.3	2.4	2.2	0.4	3.2	(91.7)	(113.3)
	JSW Energy	1,850.3	42.8	32.0	14.7	19.2	18.2	7.0	7.3	(16.5)	(13.2)
	NTPC	15,163.0	23.5	16.3	11.0	11.8	11.2	4.8	4.8	(9.4)	-
	RattanIndia Power	301.4	49.9	12.8	(12.3)	(12.7)	(8.0)	(3.7)	-	(9.5)	-
	Reliance Power	1,599.3	47.1	35.6	13.3	5.1	6.0	1.7	2.2	1.5	28.2
	Tata Power Co	2,497.1	20.8	14.7	3.1	0.4	6.2	0.2	2.1	(346.5)	260.0
<b>Average (weighted by mkt cap.)</b>			<b>25.9</b>	<b>18.1</b>	<b>9.5</b>	<b>9.7</b>	<b>10.2</b>	<b>3.8</b>	<b>4.2</b>	<b>(41.8)</b>	<b>82.9</b>

Note: 1) As of 30/08/2015

Source: Bloomberg, AWR Lloyd analysis



# Profitability and Growth – Other Asia

Company Name		Mkt <sup>1</sup> Cap USD M	EBITDA Margin 2015E %	EBIT Margin 2015E %	Net Margin 2015E %	ROE 2014A %	ROE 2015E %	ROA 2014A %	ROA 2015E %	EPS Gr. 2014A %	EPS Gr. 2015E %
TH-R	CK Power PCL	514.5	54.1	28.1	7.3	4.0	4.4	0.9	0.9	95.5	(9.9)
	Energy Absolute PCL	2,072.6	42.0	34.8	29.3	31.4	40.7	10.4	12.2	514.3	91.4
	Gunkul Engineering PCL	731.0	13.7	13.7	14.8	17.6	14.7	9.2	7.1	(38.5)	33.5
	Inter Far East Engineering	478.9	75.4	55.5	35.4	2.5	6.6	1.8	3.5	22.5	231.4
	SPCG PCL	611.5	78.9	65.5	43.8	39.3	33.2	6.9	10.1	147.2	36.4
	Superblock PCL	1,201.8	-	-	-	(3.6)	-	(3.0)	-	-	-
	Thai Solar Energy Pcl	291.4	70.7	(3.5)	80.0	26.3	13.8	9.5	7.5	-	-
	TPC Power Hldg Co	187.1	43.5	34.6	18.9	2.5	4.5	1.3	2.5	-	-
	<i>Average (weighted by mkt cap.)</i>			48.7	34.5	29.8	17.9	25.7	5.5	8.5	269.4
TH-O	Electricity Generating PCL	2,330.0	38.1	24.1	44.0	10.8	9.6	5.3	4.0	7.0	(7.4)
	Global Power Synergy Co	941.3	12.1	7.7	8.2	-	6.0	-	3.9	-	-
	Glow Energy PCL	3,655.8	26.7	19.9	13.7	21.3	18.8	7.5	7.5	26.8	15.2
	Ratchaburi Electricity Gen. Hldg	2,156.0	15.1	11.5	11.1	10.5	9.8	6.6	5.9	(3.6)	(27.0)
	<i>Average (weighted by mkt cap.)</i>			25.4	17.7	20.3	15.4	13.0	6.6	5.9	13.1
PH-O	Aboitiz Power Corp	6,814.4	33.0	25.9	19.7	18.6	18.1	8.1	8.1	(9.9)	-
	Energy Development Corp	2,408.8	57.5	44.5	28.2	30.6	21.5	10.2	8.5	118.1	62.5
	First Gen Corp	1,830.3	34.7	26.2	7.7	12.8	10.1	3.8	5.2	79.3	-
	First Philippine Hldg Corp	830.0	30.4	22.1	5.2	8.8	8.1	1.8	1.7	109.4	-
	Manila Electric Co	6,853.7	11.8	10.2	6.6	23.4	23.2	6.8	6.7	4.9	-
	San Miguel Corp	2,648.2	-	-	-	3.8	-	1.2	-	(73.1)	-
	<i>Average (weighted by mkt cap.)</i>			28.4	22.4	14.2	18.8	19.2	6.5	7.1	13.7
MY-O	Tenaga Nasional Bhd	15,118.9	28.8	15.1	12.9	16.0	13.8	6.1	5.8	19.2	18.8
	YTL Power International Bhd	2,613.8	25.0	13.7	7.5	8.3	8.2	2.1	2.4	32.2	(3.8)
	<i>Average (weighted by mkt cap.)</i>			28.3	14.9	12.1	14.8	13.0	5.5	5.3	21.1
SG-O	Keppel Corp	9,084.0	17.9	15.4	13.7	18.8	13.7	6.1	5.0	1.5	(17.0)
	Sembcorp Industries	4,456.5	13.5	10.0	5.8	15.3	12.0	5.2	4.6	(3.0)	(12.8)
	<i>Average (weighted by mkt cap.)</i>			16.5	13.7	11.1	17.6	13.2	5.8	4.8	(0.0)
KO-O	Korea Electric Power Corp	26,836.0	30.2	15.2	8.0	5.2	17.4	1.7	6.1	-	9.6

Note: 1) As of 30/08/2015  
Source: Bloomberg, AWR Lloyd analysis



# Valuation – China and India

Company Name		EV/EBITDA 2014A	EV/EBITDA 2015E	P/E 2014A	P/E 2015E	P/Sales 2014A	P/Sales 2015E	PB 2014A	PB 2015E	Eq. Beta	Ke %	Kd %
		x	x	x	x	x	x	x	x			
CH-R	Beijing Jingneng Clean Energy Co	9.5	7.7	14.7	6.4	2.0	0.9	1.5	0.9	0.9	8.1	3.1
	CECEP Wind-Power Corp	53.0	-	92.3	-	14.3	-	5.7	-	-	8.7	3.9
	China Longyuan Power Group	11.2	9.7	20.3	14.5	2.9	2.6	1.6	1.5	1.0	8.2	2.6
	China Singyes Solar Tech. Hldg	5.7	4.1	10.3	4.5	1.2	0.5	1.9	0.8	1.0	8.0	3.5
	Concord New Energy Group	19.5	6.0	11.5	8.7	1.0	0.9	0.7	0.7	1.0	11.6	1.7
	GCL New Energy Hldg	29.6	13.1	-	14.7	0.6	2.4	3.7	1.8	0.6	8.1	0.5
	Huaneng Renewables Corp	11.7	9.7	16.2	12.4	3.0	2.7	1.2	1.3	0.9	7.6	3.6
	Shunfeng Inter. Clean Energy	12.2	-	7.7	2.3	1.8	0.4	2.0	0.6	0.8	8.3	3.7
	United Photovoltaics Group	20.1	5.5	6.8	8.5	8.0	1.9	2.5	0.9	1.4	15.8	2.1
	<i>Average (weighted by mkt cap.)</i>	<b>24.6</b>	<b>9.2</b>	<b>40.6</b>	<b>11.9</b>	<b>6.1</b>	<b>2.2</b>	<b>2.9</b>	<b>1.3</b>	<b>1.0</b>	<b>8.5</b>	<b>3.1</b>
CH-O	China Power International Devel.	8.4	8.5	7.5	8.9	1.0	1.5	1.0	1.2	0.8	9.8	3.5
	China Resources Power Hldg Co	6.8	6.8	10.3	7.2	1.3	1.3	1.4	1.1	0.9	8.6	2.7
	CLP Hldg	11.1	10.5	15.1	14.7	1.8	1.7	1.9	1.7	0.7	8.7	1.7
	Datang Inter. Power Gen. Co	9.5	9.7	25.7	8.0	0.6	0.9	1.0	0.8	0.9	9.3	1.8
	GD Power Development Co	9.1	10.3	13.3	13.1	1.3	1.5	1.8	1.6	1.0	13.3	3.1
	HK Electric Investments	11.6	11.2	13.1	14.1	4.0	4.3	0.9	1.0	-	11.8	2.1
	Huadian Power International Corp	6.5	7.2	7.3	7.2	0.6	0.9	1.5	1.3	0.8	9.1	3.2
	Huaneng Power International Inc	7.4	6.8	11.0	7.6	0.9	0.9	1.7	1.4	0.8	9.7	2.6
	Power Assets Hldg	80.4	66.2	2.6	18.1	75.4	85.3	1.3	1.1	0.7	8.8	2.4
	<i>Average (weighted by mkt cap.)</i>	<b>20.4</b>	<b>18.1</b>	<b>11.6</b>	<b>11.6</b>	<b>13.4</b>	<b>15.0</b>	<b>1.5</b>	<b>1.3</b>	<b>0.8</b>	<b>9.7</b>	<b>2.5</b>
IN-R	Greenko Group PLC	-	7.8	-	10.1	-	1.0	1.4	0.6	0.1	8.5	10.9
	Mytrah Energy	13.4	8.9	103.3	22.3	2.8	1.8	2.7	1.4	0.5	10.2	8.9
	Orient Green Power Co	11.4	-	-	-	1.7	-	1.0	-	1.1	12.8	10.7
	<i>Average (weighted by mkt cap.)</i>	<b>12.7</b>	<b>8.3</b>	<b>103.3</b>	<b>16.1</b>	<b>2.4</b>	<b>1.4</b>	<b>1.8</b>	<b>1.0</b>	<b>0.5</b>	<b>10.1</b>	<b>10.1</b>
IN-O	Adani Enterprises	6.3	18.3	34.7	4.7	1.1	0.2	2.6	0.6	1.7	15.6	9.2
	CESC	9.8	7.3	38.9	17.9	0.7	0.5	1.3	1.1	1.2	13.5	6.4
	Gujarat Industries Power Co	2.7	-	10.3	6.2	1.1	0.8	0.7	0.6	1.0	12.5	5.4
	Jaiprakash Power Ventures	10.1	9.3	20.1	77.1	0.7	0.3	0.5	0.3	1.9	16.5	9.9
	JSW Energy	5.2	4.4	14.5	9.8	2.1	1.3	2.6	1.5	1.5	15.0	7.8
	NTPC	10.2	9.8	12.1	10.5	1.5	1.2	1.5	1.2	0.9	12.2	11.0
	RattanIndia Power	482.9	-	-	-	4.0	1.3	0.5	0.4	1.3	14.0	-
	Reliance Power	15.0	9.1	15.4	8.5	2.3	1.1	0.8	0.5	1.4	14.5	8.6
	Tata Power Co	8.2	7.3	453.5	20.5	0.6	0.5	1.6	1.2	1.3	13.7	5.2
	<i>Average (weighted by mkt cap.)</i>	<b>15.5</b>	<b>9.4</b>	<b>61.2</b>	<b>12.1</b>	<b>1.5</b>	<b>1.0</b>	<b>1.6</b>	<b>1.1</b>	<b>1.1</b>	<b>13.0</b>	<b>9.6</b>

Note: Ke = cost of equity; Kd = cost of debt (after tax)

Source: Bloomberg, AWR Lloyd analysis



# Valuation – Other Asia

Company Name	EV/EBITDA 2014A	EV/EBITDA 2015E	P/E 2014A	P/E 2015E	P/Sales 2014A	P/Sales 2015E	PB 2014A	PB 2015E	Eq. Beta	Ke %	Kd %
CK Power PCL	13.0	-	41.4	33.8	2.8	2.7	1.6	0.6	1.2	13.6	3.7
Energy Absolute PCL	33.3	19.9	58.1	24.2	12.3	7.1	15.8	8.5	1.1	12.4	3.5
Gunkul Engineering PCL	68.7	45.2	46.0	30.8	8.5	4.9	7.5	3.4	1.5	16.3	1.8
Inter Far East Engineering	1,222.3	32.2	172.9	45.9	27.7	16.1	4.5	2.5	1.0	11.3	1.6
TH-R SPCG PCL	10.3	8.9	14.3	9.2	5.4	4.1	4.3	2.8	1.1	13.0	3.6
Superblock PCL	(6,342.7)	-	-	-	132.9	-	0.8	-	1.2	12.4	3.3
Thai Solar Energy Pcl	14.6	-	19.0	19.8	13.3	15.8	4.1	2.7	-	10.8	3.6
TPC Power Hldg Co	62.7	36.6	-	78.0	-	14.8	-	3.3	-	30.9	3.6
<i>Average (weighted by mkt cap.)</i>	<i>(1,131.5)</i>	<i>25.0</i>	<i>58.0</i>	<i>28.2</i>	<i>36.1</i>	<i>7.6</i>	<i>7.8</i>	<i>5.0</i>	<i>1.2</i>	<i>13.5</i>	<i>3.2</i>
TH-O Electricity Generating PCL	24.8	24.5	11.5	11.3	5.1	5.0	1.2	1.1	0.5	7.7	3.2
Global Power Synergy Co	12.2	-	-	16.9	-	1.5	-	0.9	-	6.6	3.6
Glow Energy PCL	9.4	9.4	14.3	15.1	1.8	1.8	2.9	2.6	0.9	11.4	3.1
Ratchaburi Electricity Gen. Hldg	10.4	11.1	13.6	12.6	1.5	1.4	1.4	1.2	0.7	9.6	2.5
<i>Average (weighted by mkt cap.)</i>	<i>13.9</i>	<i>14.2</i>	<i>13.3</i>	<i>13.7</i>	<i>2.7</i>	<i>2.5</i>	<i>2.0</i>	<i>1.7</i>	<i>0.7</i>	<i>9.6</i>	<i>3.0</i>
PH-O Aboitiz Power Corp	13.7	13.6	18.9	18.1	3.6	3.6	3.4	3.3	0.8	9.1	5.1
Energy Development Corp	9.0	8.7	13.2	11.5	5.0	3.3	3.7	2.3	1.1	10.7	5.4
First Gen Corp	6.7	6.5	11.0	11.9	1.0	0.9	1.5	1.3	1.1	10.5	4.8
First Philippine Hldg Corp	6.5	6.2	8.1	7.3	0.5	0.4	0.8	0.6	0.8	9.2	4.6
Manila Electric Co	8.7	8.7	16.0	17.4	1.1	1.2	3.6	3.9	0.8	9.2	4.7
San Miguel Corp	9.1	-	20.4	-	0.2	-	0.8	-	0.6	8.0	4.3
<i>Average (weighted by mkt cap.)</i>	<i>10.1</i>	<i>10.2</i>	<i>16.4</i>	<i>15.9</i>	<i>2.2</i>	<i>2.2</i>	<i>2.9</i>	<i>3.1</i>	<i>0.8</i>	<i>9.3</i>	<i>4.8</i>
MY-O Tenaga Nasional Bhd	5.8	5.6	10.8	10.5	1.6	1.5	1.6	1.3	1.2	10.3	4.9
YTL Power International Bhd	7.5	8.3	12.4	12.2	0.9	0.9	1.0	1.0	0.7	7.9	4.4
<i>Average (weighted by mkt cap.)</i>	<i>6.0</i>	<i>6.0</i>	<i>11.0</i>	<i>10.7</i>	<i>1.5</i>	<i>1.4</i>	<i>1.5</i>	<i>1.2</i>	<i>1.1</i>	<i>10.0</i>	<i>4.8</i>
SG-O Keppel Corp	8.3	10.2	8.5	8.7	1.2	1.1	1.5	1.2	1.0	9.7	2.8
Sembcorp Industries	8.5	7.6	10.0	9.0	0.7	0.6	1.5	1.0	1.1	10.8	2.7
<i>Average (weighted by mkt cap.)</i>	<i>8.3</i>	<i>9.3</i>	<i>9.0</i>	<i>8.8</i>	<i>1.1</i>	<i>0.9</i>	<i>1.5</i>	<i>1.1</i>	<i>1.0</i>	<i>10.1</i>	<i>2.8</i>
KO-O Korea Electric Power Corp	6.0	5.0	10.0	7.2	0.5	0.5	0.5	0.5	0.6	8.0	1.9

Note: Ke = cost of equity; Kd = cost of debt (after tax)

Source: Bloomberg, AWR Lloyd analysis



# Capital Structure and Stock Performance – China and India

Company Name		Enterprise Value USD M	Market Cap USD M	Total Debt USD M	Net Debt/ Equity %	Net Debt/ EBITDA x	Interest Coverage x	Share Price USD	Change 1 Mo %	Change 3 Mo %	Change 12 Mo %	Div. Yield 2014A %	Div. Yield 2015E %	12 mo volatility %
CH-R	Beijing Jingneng Clean Energy Co	5,608.6	2,030.1	4,688.6	189.5	4.3	2.1	0.3	(11.6)	(35.9)	(33.2)	1.2	0.1	47.4
	CECEP Wind-Power Corp	8,988.0	7,588.6	1,217.4	185.2	5.7	1.5	4.3	15.7	(5.9)	-	0.4	-	-
	China Longyuan Power Group	21,058.8	8,679.2	11,342.6	166.0	-	2.2	1.1	(5.1)	(12.7)	(0.1)	0.7	0.2	36.0
	China Singyes Solar Tech. Hldg	783.4	474.4	441.1	58.5	2.0	3.2	0.7	(32.7)	(56.0)	(58.6)	0.7	0.2	57.7
	Concord New Energy Group	862.3	554.1	294.3	20.4	4.9	2.2	0.1	(5.9)	(32.4)	(32.4)	-	0.0	65.8
	GCL New Energy Hldg	761.2	868.1	93.3	252.1	(5.3)	2.2	0.1	(13.4)	(44.9)	9.6	-	-	89.0
	Huaneng Renewables Corp	10,524.8	3,577.3	7,628.2	234.3	6.6	1.5	0.4	(10.9)	(21.5)	-	0.8	0.1	47.3
	Shunfeng Inter. Clean Energy	2,413.1	967.1	1,593.5	146.4	7.3	2.3	0.3	(28.5)	(64.0)	(80.0)	-	-	74.1
	United Photovoltaics Group	865.5	422.1	483.4	180.3	-	0.4	0.1	(22.5)	(53.7)	(25.8)	-	-	83.2
	<i>Average (weighted by mkt cap.)</i>				<b>180.6</b>	<b>5.1</b>	<b>1.9</b>		<b>(2.2)</b>	<b>(18.8)</b>	<b>(13.9)</b>	<b>0.7</b>	<b>0.2</b>	<b>47.0</b>
CH-O	China Power International Devel.	12,369.4	4,792.3	7,367.4	163.7	4.5	2.6	0.7	(4.0)	(9.9)	43.9	4.3	0.5	40.6
	China Resources Power Hldg Co	25,075.5	11,704.3	12,952.6	107.4	2.9	6.2	2.4	(2.5)	(12.3)	(19.4)	3.9	2.5	35.5
	CLP Hldg	30,289.0	20,863.3	8,700.4	66.1	4.1	4.4	8.3	(2.1)	(5.6)	(2.4)	3.9	20.7	13.0
	Datang Inter. Power Gen. Co	41,092.7	9,986.1	28,649.5	272.3	6.6	1.8	0.4	(3.1)	(31.3)	(27.4)	3.1	0.3	43.8
	GD Power Development Co	37,587.2	13,257.1	20,870.1	193.5	-	2.3	0.7	(19.6)	(36.0)	86.6	3.2	0.3	54.6
	HK Electric Investments	11,629.8	6,122.6	6,173.5	87.9	5.1	5.4	0.7	(0.4)	1.9	4.3	7.1	3.7	10.7
	Huadian Power International Corp	26,224.5	9,466.4	18,856.0	260.5	3.5	2.7	0.8	(13.8)	(26.8)	21.5	4.0	0.6	47.5
	Huaneng Power International Inc	47,763.3	18,898.5	24,951.0	167.8	3.7	3.6	1.2	(6.7)	(14.0)	(4.2)	3.6	1.3	39.0
	Power Assets Hldg	10,932.2	18,395.7	1,316.0	(41.5)	-	2.1	8.6	(5.6)	(10.1)	(5.4)	3.6	14.1	19.2
	<i>Average (weighted by mkt cap.)</i>				<b>124.4</b>	<b>4.2</b>	<b>3.4</b>		<b>(6.6)</b>	<b>(15.8)</b>	<b>7.6</b>	<b>3.8</b>	<b>6.9</b>	<b>32.1</b>
IN-R	Greenko Group PLC	1,003.8	184.9	803.5	160.2	-	-	1.2	5.8	67.9	(56.6)	-	-	57.8
	Mytrah Energy	753.4	182.3	456.3	335.3	7.7	0.7	1.1	(3.3)	(4.0)	(11.0)	-	-	43.7
	Orient Green Power Co	448.1	101.8	346.4	257.7	9.0	0.2	0.2	(12.5)	(6.3)	(14.7)	-	-	56.8
	<i>Average (weighted by mkt cap.)</i>				<b>249.5</b>	<b>8.1</b>	<b>0.6</b>		<b>(1.7)</b>	<b>23.9</b>	<b>(29.8)</b>	<b>-</b>	<b>-</b>	<b>52.1</b>
IN-O	Adani Enterprises	13,280.9	1,282.4	12,020.7	236.9	5.5	1.3	1.2	(5.7)	(45.5)	(19.6)	1.4	2.5	52.8
	CESC	3,225.5	1,049.0	2,279.3	178.7	6.3	1.6	7.9	(8.3)	(4.5)	(24.8)	1.2	21.0	41.3
	Gujarat Industries Power Co	187.7	165.9	80.5	7.4	0.3	3.9	1.1	(11.5)	(11.7)	(7.1)	2.9	7.6	34.8
	Jaiprakash Power Ventures	4,588.3	262.1	4,368.2	387.8	9.5	1.0	0.1	-	(19.7)	(58.3)	-	-	63.2
	JSW Energy	3,075.1	1,850.3	1,491.6	100.0	2.1	2.8	1.1	(14.8)	(33.5)	(1.9)	1.9	4.0	49.9
	NTPC	29,129.7	15,163.0	16,410.5	103.8	4.9	3.4	1.8	(10.3)	(10.9)	(11.5)	4.0	13.8	28.8
	RattanIndia Power	2,014.3	301.4	1,753.2	209.3	-	(0.3)	0.1	(6.9)	(16.7)	(25.4)	-	-	54.7
	Reliance Power	6,213.9	1,599.3	4,940.0	139.3	-	1.9	0.6	(7.6)	(28.7)	(49.4)	-	0.4	39.9
	Tata Power Co	9,357.0	2,497.1	6,554.7	225.8	5.6	1.4	0.9	(10.6)	(18.1)	(29.5)	1.5	3.8	35.1
	<i>Average (weighted by mkt cap.)</i>				<b>132.5</b>	<b>4.9</b>	<b>2.8</b>		<b>(10.1)</b>	<b>(16.3)</b>	<b>(16.8)</b>	<b>3.2</b>	<b>10.8</b>	<b>34.4</b>

Note: Information as of 30/08/2015, unless stated otherwise. Share prices as of 30/08/2015

Source: Bloomberg, AWR Lloyd analysis



# Capital Structure and Stock Performance – Other Asia

Company Name		Enterprise Value USD M	Market Cap USD M	Total Debt USD M	Net Debt/ Equity %	Net Debt/ EBITDA x	Interest Coverage x	Share Price USD	Change 1 Mo %	Change 3 Mo %	Change 12 Mo %	Div. Yield 2014A %	Div. Yield 2015E %	12 mo volatility %
TH-R	CK Power PCL	1,557.5	514.5	685.9	78.6	5.3	1.7	0.1	(1.6)	(17.2)	(19.2)	0.6	0.1	38.1
	Energy Absolute PCL	2,415.7	2,072.6	364.7	182.0	3.0	5.9	0.6	(7.0)	(19.1)	(19.4)	0.1	0.4	40.0
	Gunkul Engineering PCL	749.2	731.0	69.7	23.4	2.2	5.7	0.6	(2.4)	(19.2)	30.8	0.1	0.5	43.1
	Inter Far East Engineering	455.7	478.9	57.1	(30.3)	-	(2.0)	0.3	(6.0)	(18.3)	93.4	0.1	0.2	66.0
	SPCG PCL	1,068.5	611.5	547.4	213.8	3.5	2.9	0.7	(1.7)	(13.0)	(10.6)	3.1	3.1	32.6
	Superblock PCL	1,162.2	1,201.8	22.8	(21.5)	-	(1.9)	0.0	27.9	(10.5)	101.4	-	-	75.0
	Thai Solar Energy Pcl	275.8	291.4	96.0	55.1	3.1	2.9	0.2	(2.5)	(12.2)	-	-	-	-
	TPC Power Hldg Co	183.9	187.1	30.9	(18.2)	(3.7)	2.4	0.5	(8.2)	(13.0)	-	-	-	-
	<i>Average (weighted by mkt cap.)</i>				88.3	2.9	2.8		1.7	(16.1)	23.6	0.6	0.7	49.1
TH-O	Electricity Generating PCL	4,629.0	2,330.0	2,290.1	91.8	-	1.4	4.4	3.3	5.0	(7.0)	3.7	32.6	19.2
	Global Power Synergy Co	1,023.8	941.3	388.7	36.0	3.5	3.3	0.6	(4.7)	(15.9)	-	-	-	-
	Glow Energy PCL	5,315.7	3,655.8	1,715.3	96.3	2.8	4.0	2.5	1.7	-	2.3	3.6	11.7	33.1
	Ratchaburi Electricity Gen. Hldg	2,338.0	2,156.0	677.5	13.1	0.7	3.9	1.5	(1.4)	(7.0)	(8.6)	3.9	13.1	17.3
	<i>Average (weighted by mkt cap.)</i>				69.2	2.2	3.3		0.7	(3.4)	(3.3)	3.7	18.0	24.9
PH-O	Aboitiz Power Corp	8,325.8	6,814.4	2,175.8	59.4	2.4	3.7	0.9	(1.6)	0.6	16.7	2.7	8.6	18.8
	Energy Development Corp	3,626.3	2,408.8	1,552.6	125.9	3.0	3.7	0.1	(15.5)	(24.1)	(16.3)	1.2	0.8	25.2
	First Gen Corp	4,338.8	1,830.3	2,845.0	112.9	3.1	2.9	0.5	(11.7)	(13.4)	(3.1)	0.0	0.0	30.4
	First Philippine Hldg Corp	4,597.0	830.0	3,624.7	94.7	3.6	2.6	1.5	(11.8)	(22.0)	(11.4)	2.2	9.3	21.5
	Manila Electric Co	6,340.4	6,853.7	671.5	(49.6)	(0.8)	19.4	6.1	(4.2)	1.6	14.7	1.5	78.1	18.0
	San Miguel Corp	16,554.2	2,648.2	14,961.5	105.3	5.1	2.1	1.1	(8.0)	(20.0)	(34.2)	1.9	-	25.7
	<i>Average (weighted by mkt cap.)</i>				43.6	1.9	8.4		(6.0)	(6.5)	3.3	1.8	32.2	21.2
MY-O	Tenaga Nasional Bhd	20,980.7	15,118.9	10,196.0	47.1	1.2	7.8	2.7	(7.9)	(16.3)	(9.7)	2.1	1.8	18.5
	YTL Power International Bhd	6,876.9	2,613.8	6,741.6	135.6	5.0	2.1	0.4	(1.3)	(1.9)	4.0	6.8	0.4	22.8
	<i>Average (weighted by mkt cap.)</i>				60.2	1.8	7.0		(6.9)	(14.2)	(7.7)	2.8	1.6	19.1
SG-O	Keppel Corp	13,411.8	9,084.0	5,573.0	8.7	2.3	13.0	5.0	(10.2)	(19.5)	(35.4)	5.4	2.3	18.4
	Sembcorp Industries	9,438.0	4,456.5	3,574.1	42.1	2.7	15.7	2.5	(6.4)	(15.6)	(31.4)	3.6	0.7	22.6
	<i>Average (weighted by mkt cap.)</i>				19.7	2.4	13.9		(9.0)	(18.3)	(34.1)	4.8	1.7	19.8
KO-O	Korea Electric Power Corp	78,102.2	26,836.0	58,177.4	112.5	3.5	2.5	41.8	1.4	6.5	16.6	1.2	4,695.3	31.6

Note: Information as of 30/08/2015, unless stated otherwise. Share prices as of 30/08/2015

Source: Bloomberg, AWR Lloyd analysis

# AWR Lloyd Overview

## The Firm

AWR Lloyd is a strategy consulting and financial advisory firm that specializes in the energy, resources, and infrastructure sectors in the Asia-Pacific region. Founded in 2000, the firm has worked with numerous Asian and global companies and investors to develop and implement strategy, M&A, investment structuring, and capital raising.

We pride ourselves on working closely with blue chip and mid-sized clients as a trusted advisor, from project inception to successful completion. Most of our projects are with repeat clients that look to us for short or long term support. We provide customized solutions to deliver maximum impact for our clients.

Our ultimate goal is to help our clients create shareholder value in a sustainable way. To achieve this we leverage in-depth industry analysis, best practice corporate finance skills, and extensive local networks in Asia.

## New Energy Practice

Around the world, technological advances, regulations and economic drivers have transformed the energy sector, forcing change on existing players and providing huge opportunities to well-placed new entrants.

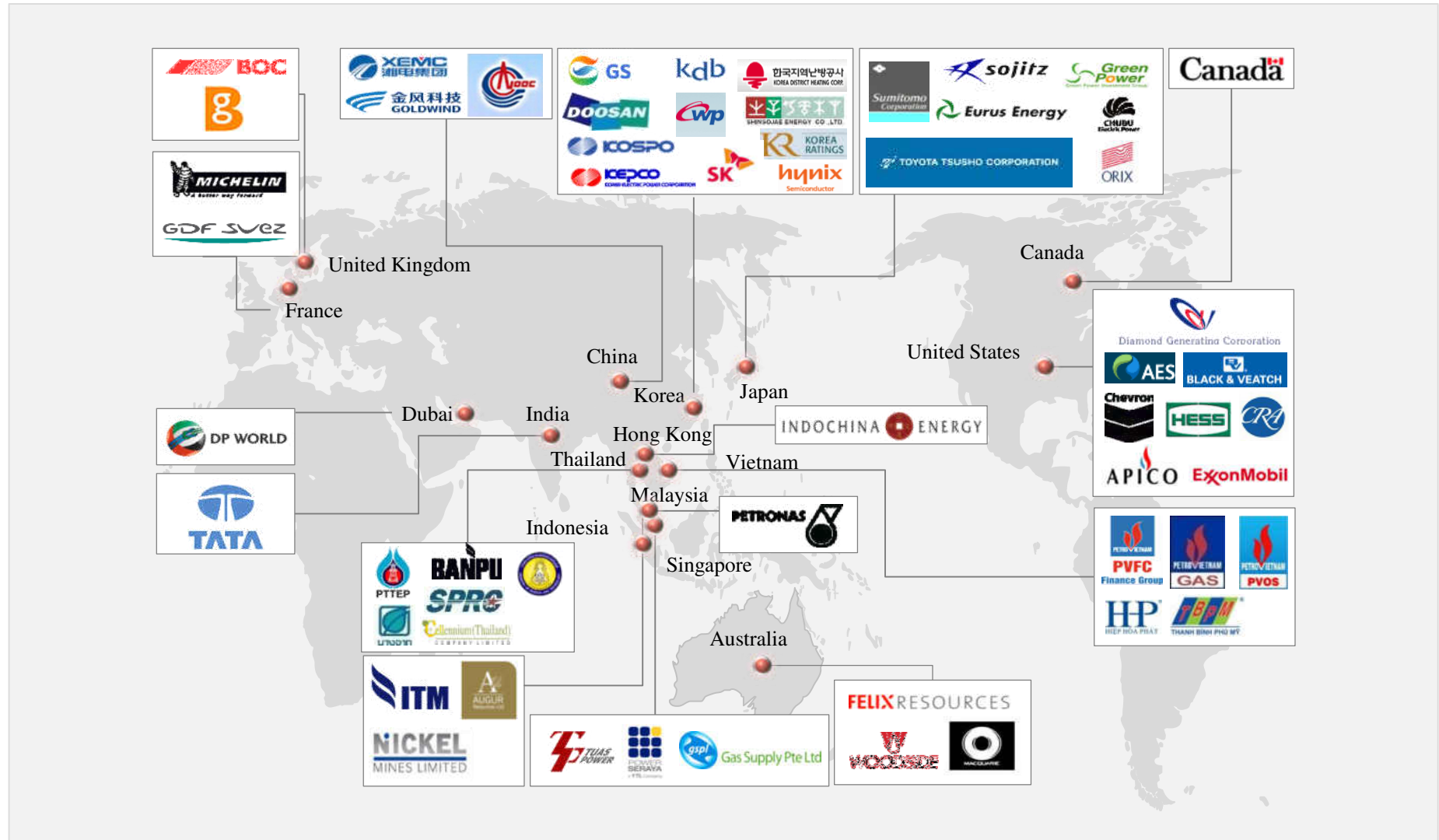
AWR Lloyd's New Energy Practice has developed a unique level of expertise in renewable energy, natural gas and related industries that are experiencing exceptional growth.

We help clients to conceive and execute winning strategies for this complex and dynamic environment by providing a unique fusion of three core businesses - strategy consulting, financial advisory, and market research.

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# A Selection of our Clients

AWR Lloyd works with a range of blue-chip industry clients and mid-sized players



About AWR Lloyd's New Energy Practice

# New Energy Practice Service Offering

## Strategy Consulting

- Growth strategy
- Value creation and maximization
- New market entry
- M&A origination, screening, and due diligence
- Financing strategy
- Strategic partnerships
- Feasibility studies
- Commercial negotiations and agreements

## Financial Advisory

- M&A transaction execution and management
- Project investment identification and origination
- Asset sales and marketing
- Project finance
- Capital raising and placement

## Market Research

- Asian markets energy industry research
- Regulatory environment analysis
- Identification of opportunities and customers
- Insights and perspectives