

24-25 May 2018 Singapore

*ESI Belt and Road Initiative for Energy Sector in ASEAN and Singapore: Trends
Prospects and Implications*

Workshop 24 May 2018

Session 2

***Chinese investments to increase energy capacity in Southeast Asia –
view from a Malaysian energy insider***



Sabar Md Hashim
TNB Special officer
Economic Planning Unit
Prime Minister's Department, Malaysia

CAVEAT

- *The items presented are taken from official Government and international agencies, outstanding research works by some individuals, institutions, utilities and may include work from my previous papers/presentations*
- *However, the issues deliberated may not necessarily reflect the official position of the institution(s) that the author comes from*

CONTENTS – Workshop

A. Ascendancy of China and new dynamics

B. Energy

C. Chinese investments to increase energy capacity in Southeast Asia & Malaysia

D. Impact

E. Challenges for Chinese companies

F. Other issues – Energy geopolitics and geostrategy



A. Ascendancy of China and new dynamics

China is a very huge economy- its domestic consumption alone requires another forum

Today, we are discussing its influence in the global stage

The rise of China's economic growth has also propagated via international forays. It has been a strategic foresight and unprecedented

The foray of Chinese companies has been on global scale – definitely beyond supply chain management which we had been accustomed to.

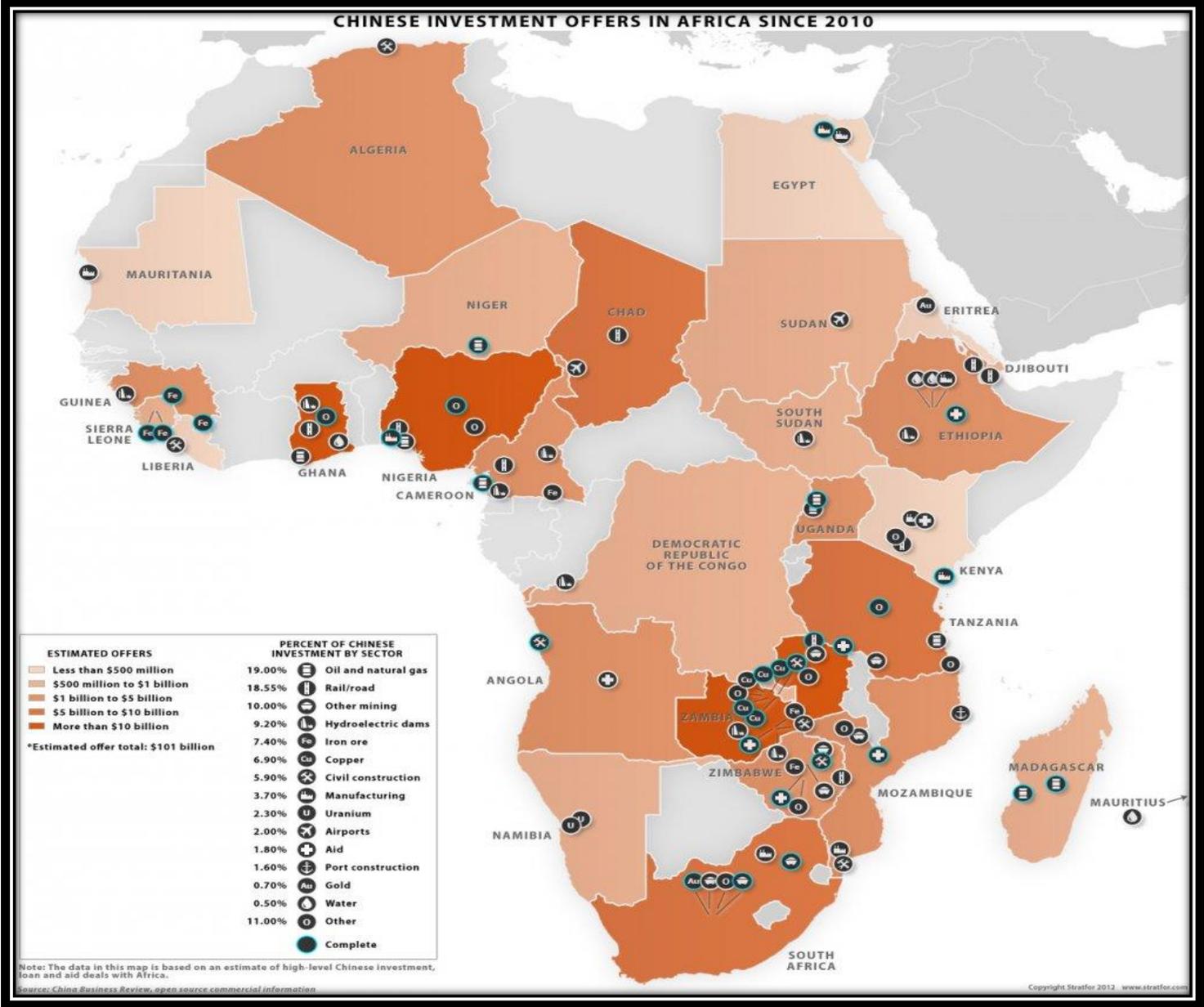
- **It has become an economic giant**
- **Developing regional economies**
- Involved in energy and non-energy related
- **They are everywhere**
- Catch 22 situation for developing countries
- China has some strong voice in many countries [read: sympathetic, voice, vote]

Did it begin when US President Barack Obama's East Asian Foreign Policy in 2012 introduced a clarion call of Pivot to Asia that triggered a response from China?

Multilateral-wise, China has been an influential voice in the Regional Comprehensive Economic Partnership (RCEP) to counter US-led Trans-Pacific Partnership Agreement (TPPA) before it hit the ground after US's withdrawal. China has even been active in other fraternities/groupings such as Shanghai Cooperation Organisation (SCO)

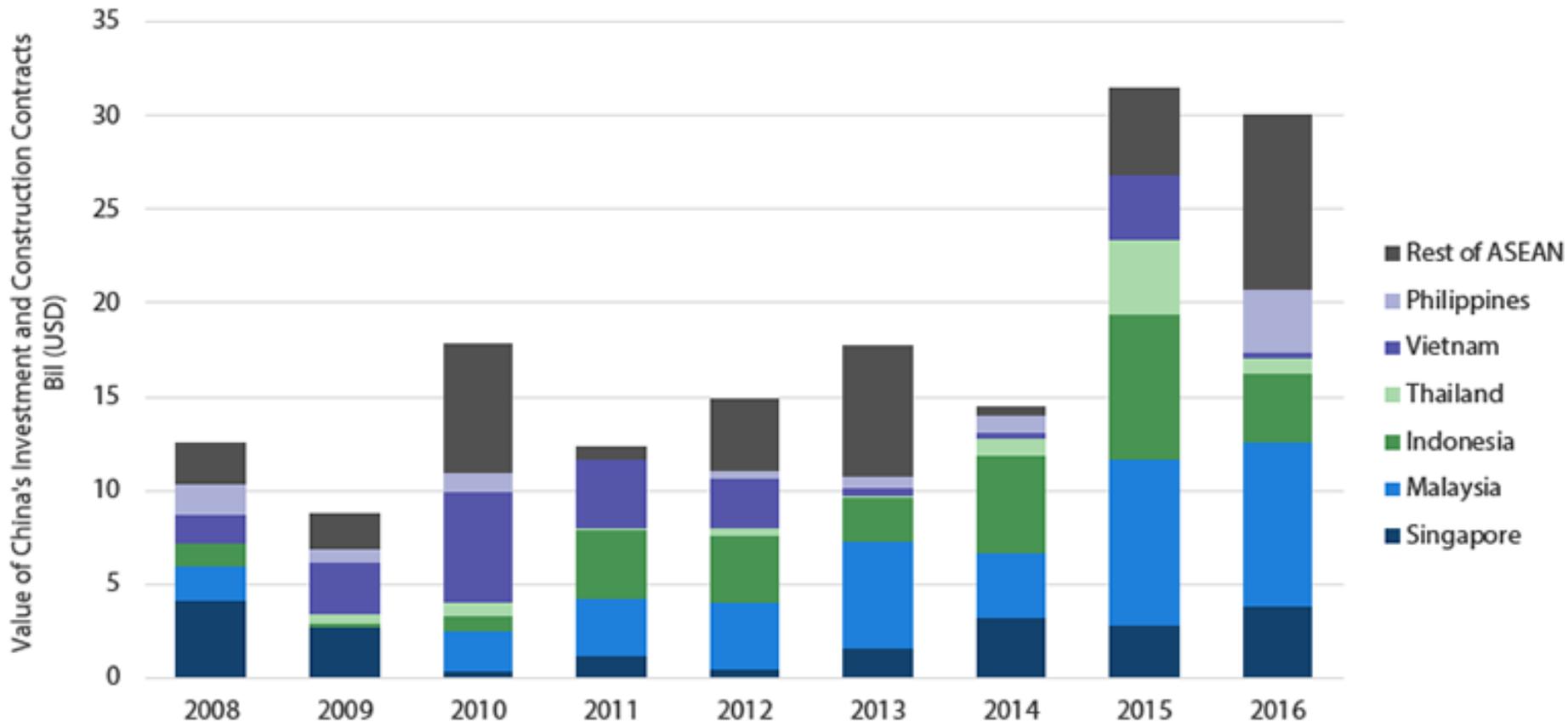
A. Ascendancy of China and new dynamics (cont.)

Case of Africa



A. Ascendancy of China and new dynamics (cont.)

Value of China's investment and construction contracts in ASEAN countries



Source: American Enterprise Institute and the Heritage Foundation, ANZ 2017

A. Ascendancy of China and new dynamics (cont.)

Bilateral trade (2017)



- China has been Malaysia's largest trading partner since 2009
- Sino-Malaysia trade (US\$96 billion) accounted for 18.7% of total trade value between China and Asean

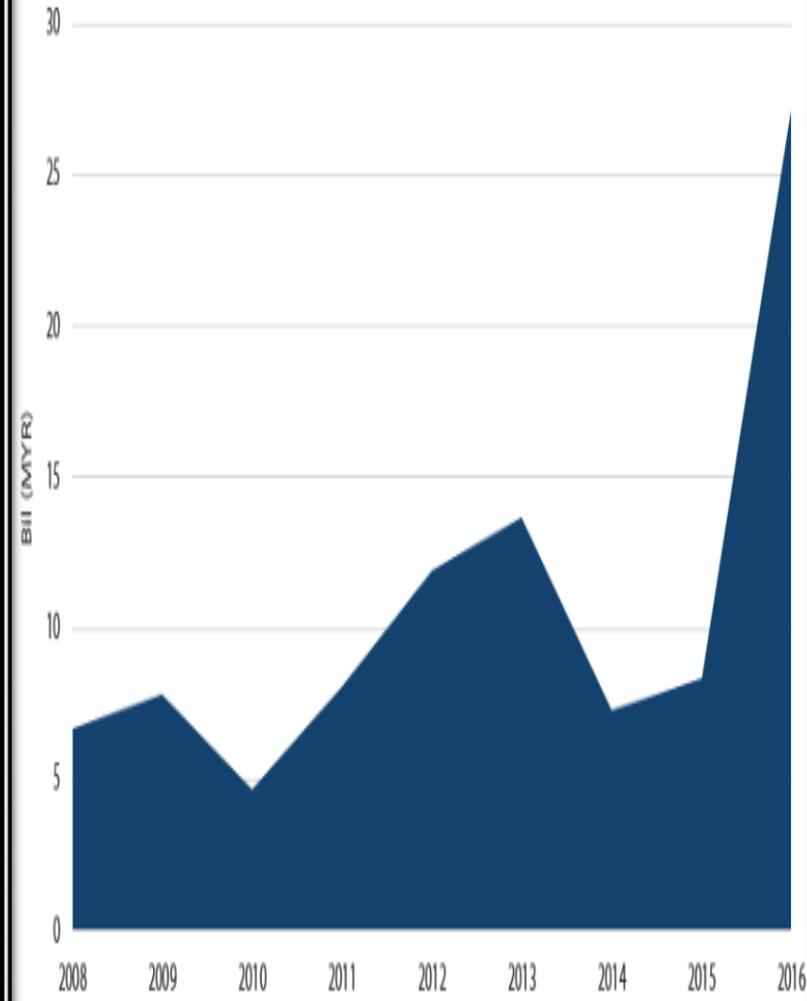
Source: China's Ministry of Foreign Affairs

Malaysia's foreign direct investment by source in 2017

Sources of FDI	US\$ (billion)	Share (%)	Change (%) (2013/17)	Contri to FDI growth (%) (13/17)
Singapore	5.15	15.5	36.1	15
Netherlands	3.35	10.1	21.6	6.6
Japan	3.06	9.2	-11.6	-4.4
US	2.9	8.7	41.5	9.4
Hong Kong	2.7	8.1	1.1	0.3
China	2.36	7.1	349.6	20.2
Britain	1.66	5	484.1	15.2
Germany	1.65	5	138.4	10.6

Note: Total FDI into Malaysia grew US\$9.1 billion from 2013 to 2017. China alone contributed to 20.2% of that growth.
 Source: DBS bank

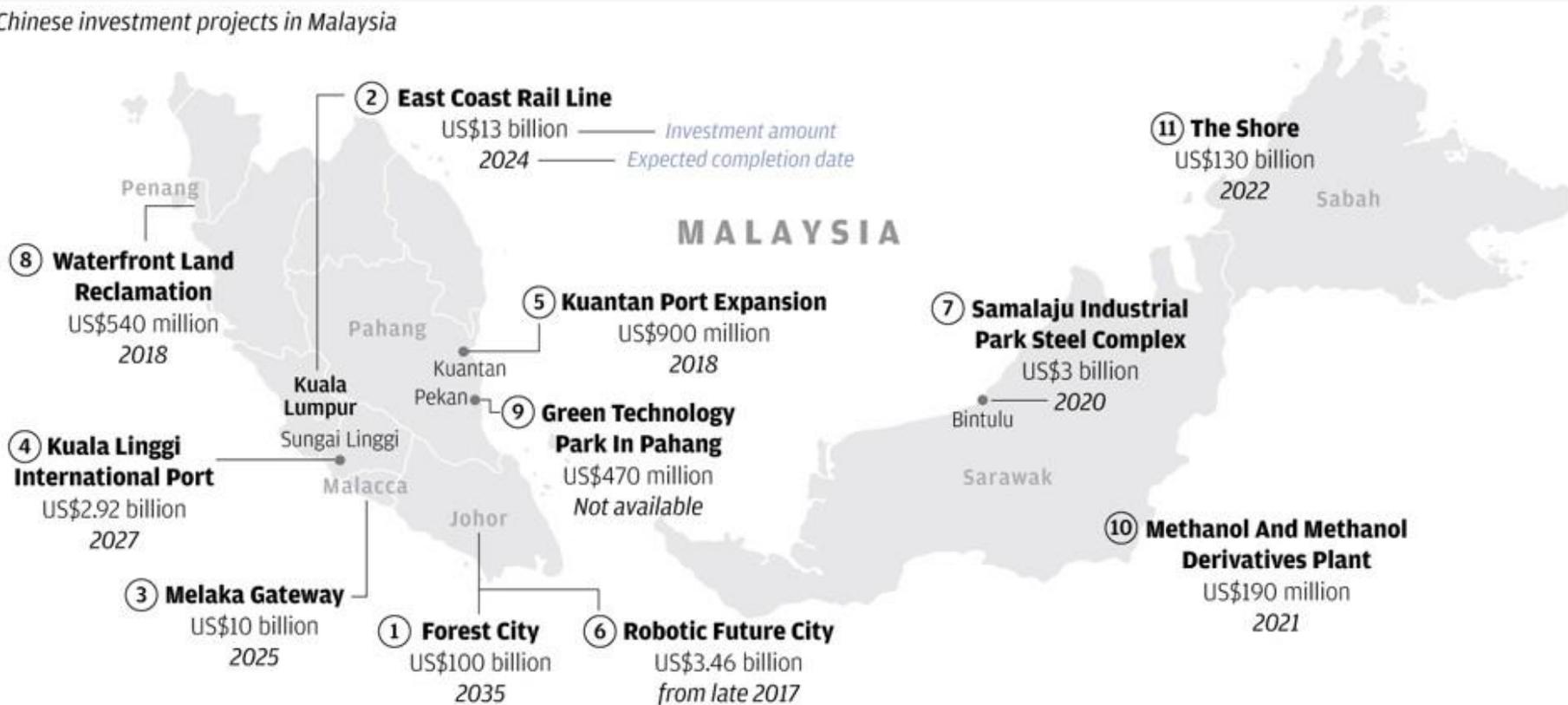
China FDI into Malaysia



Source: Malaysia Govt Agency, BAML Sep 2017

A. Ascendancy of China and new dynamics (cont.)

Chinese investment projects in Malaysia



- | | | | |
|--|---|----------------------------|-----------|
| ① Johor state | ④ Near the river-mouth of Sungai Linggi | ⑦ Bintulu, Sarawak | ⑩ Sarawak |
| ② Connecting East Coast with Kuala Lumpur | ⑤ North of Kuantan City | ⑧ Penang | ⑪ Sabah |
| ③ Off-shore development of artificial islands in Malacca | ⑥ Johor state | ⑨ Pekan district of Pahang | |

A. Ascendancy of China and new dynamics (cont.)

OBOR => BRI

Proposed in 2013 by Chinese President Xi Jinping on the building of the New Silk Road Economic Belt and 21st century Maritime Silk Road (Belt and Road Initiative or BRI).

China's moving its pivot westward – Belt and Road Initiative (BRI)

It propels and heralds in a blueprint for Asia's future infrastructure development and Southeast Asia (SEA) is a vital element

The question is whether many countries are comfortable with the large conceptual unfolding of infrastructural projects which are pivoted from mainland China itself that may be vested along key drivers from private sectors (conglomerates and others).

A major cornerstone is energy industry and it poses a lot of questions which need to be addressed sooner or later.

Whilst it runs in parallel with UN ESCAP and ASEAN's objective energy connectivity and regional cooperation, it may also invite response from Governments.

Are we seeing a **new normal**?

A. Ascendancy of China and new dynamics (cont.)

OBOR war chest:

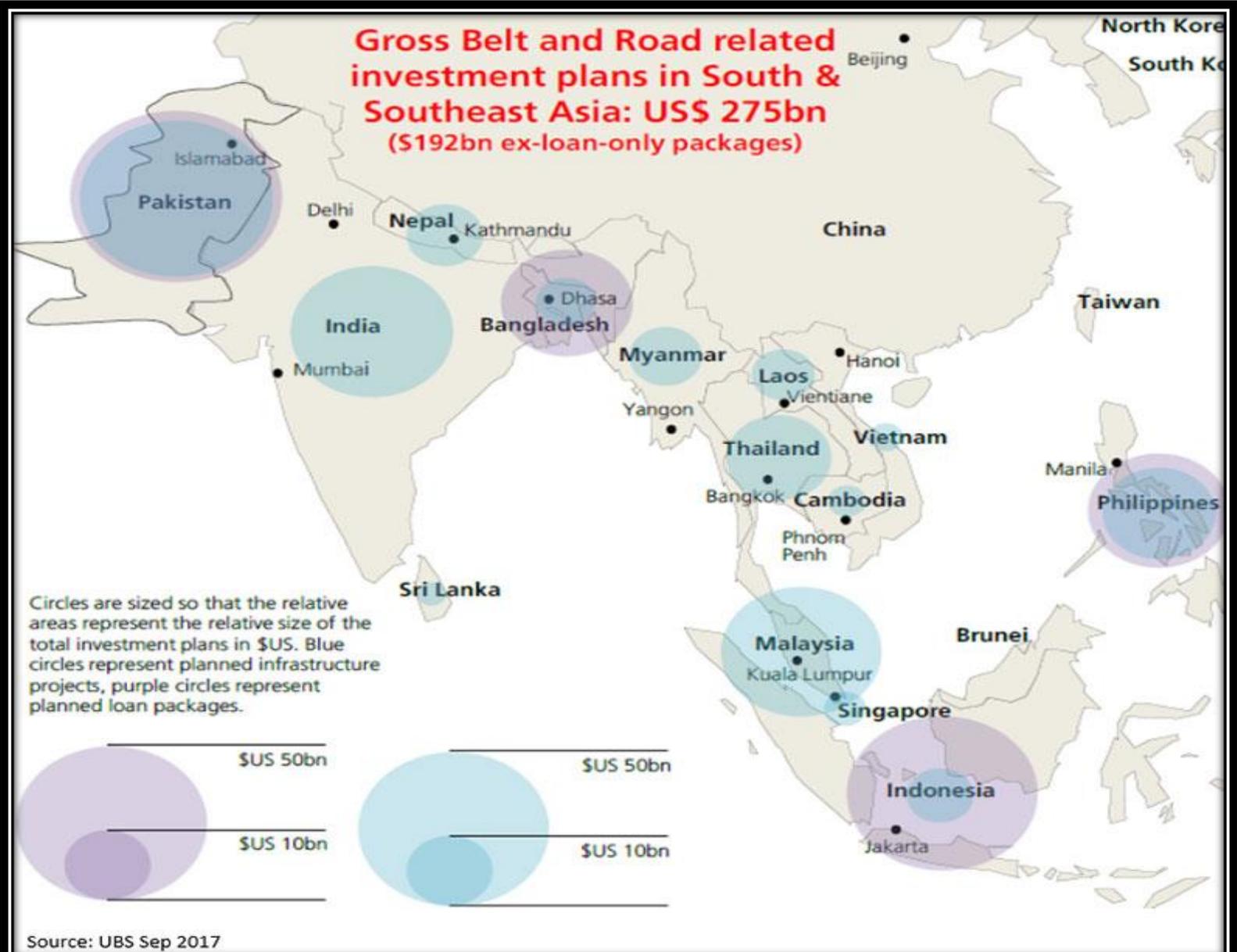
USD140billion (2015 figure)	
USD100billion	Asian Infrastructure Bank
USD40billion	Silk Road Fund

... and there are indications the war chest is growing...

“Views from Northeast Asia: A Chinese-Style Pivot or a Mega-Opportunity?“, Jae Ho Chung, Global Asia Vol.10, No.3, Fall 2015.

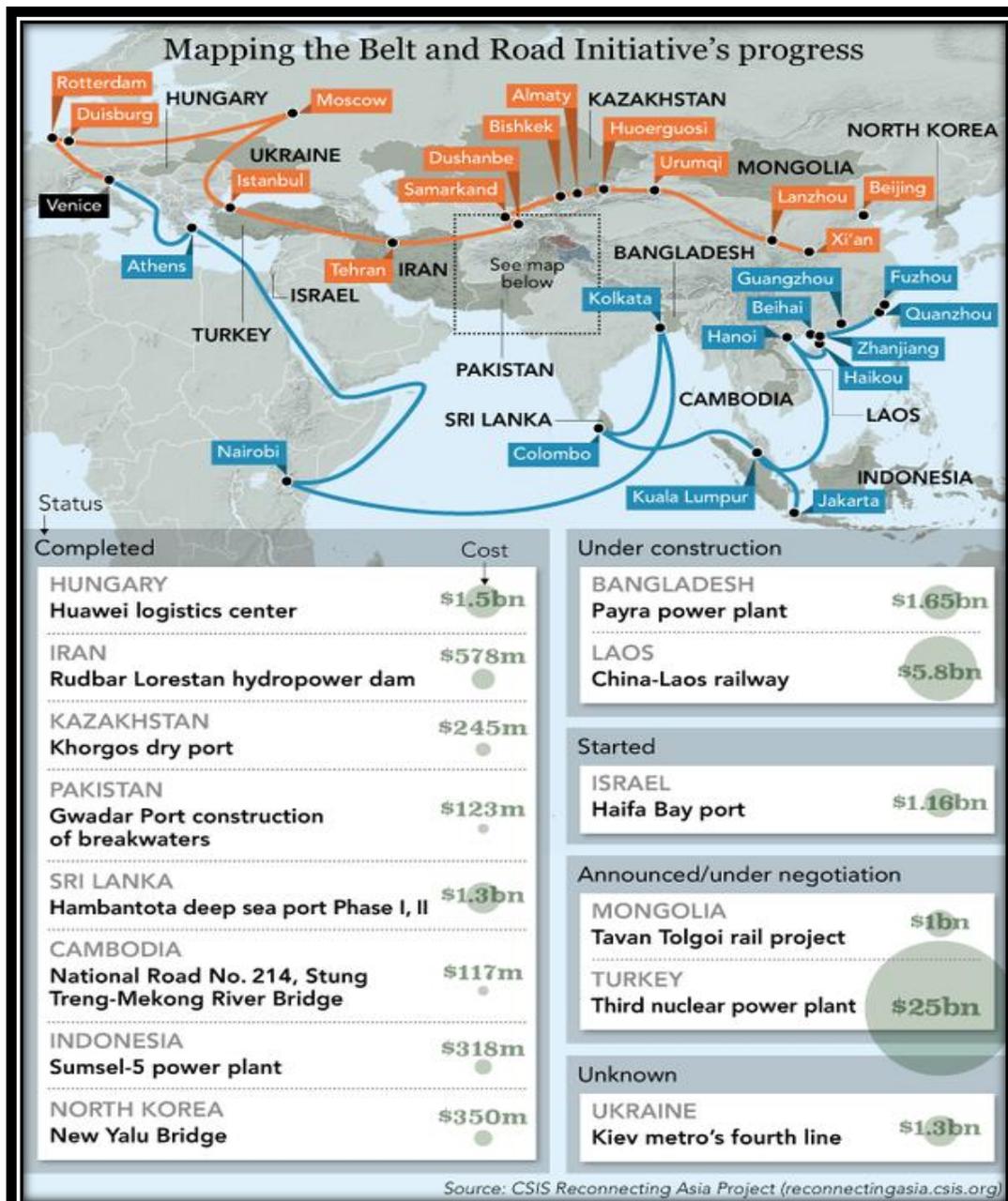


A. Ascendancy of China and new dynamics (cont.)



A. Ascendancy of China and new dynamics (cont.)

To stock take, BRI projects are already taking place and shape



B. Energy

Every country needs to think hard of energy

- **Energy security – energy consumption**
- **Resource security**
- **depleting resources**

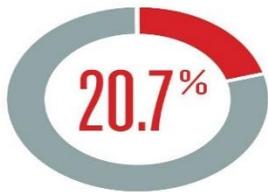
..and China has to build many power plants and secure resources even abroad

CHINA: THE WORLD'S ENERGY LABORATORY

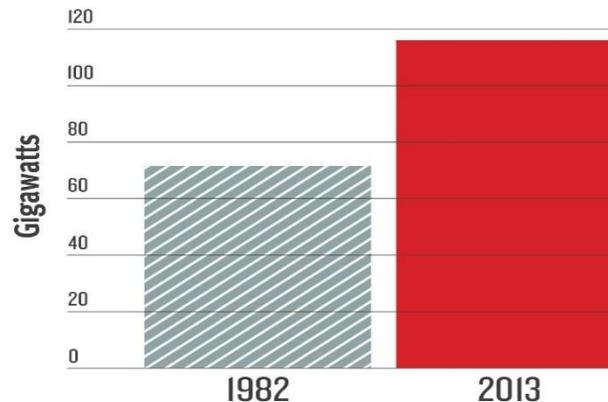
By addressing the country's energy challenges with cutting edge science, we can create global solutions.



China is the globe's biggest consumer of energy



1/5 of the world's energy demand comes from China



China's installed power generation capacity has almost doubled in the last three decades

[Source: white paper “Sustainable Energy for a Growing China: How Advanced Science Can Help Secure the Country's Energy Future”, Fortune Industry Perspectives and DuPont. Preparatory discussion for 2013 Fortune Global Forum, June 6-8, 2013, in Chengdu, China.]

C. Chinese investments to increase energy capacity in Southeast Asia & Malaysia

A major cornerstone is energy industry and it poses a lot of questions which need to be addressed sooner or later.

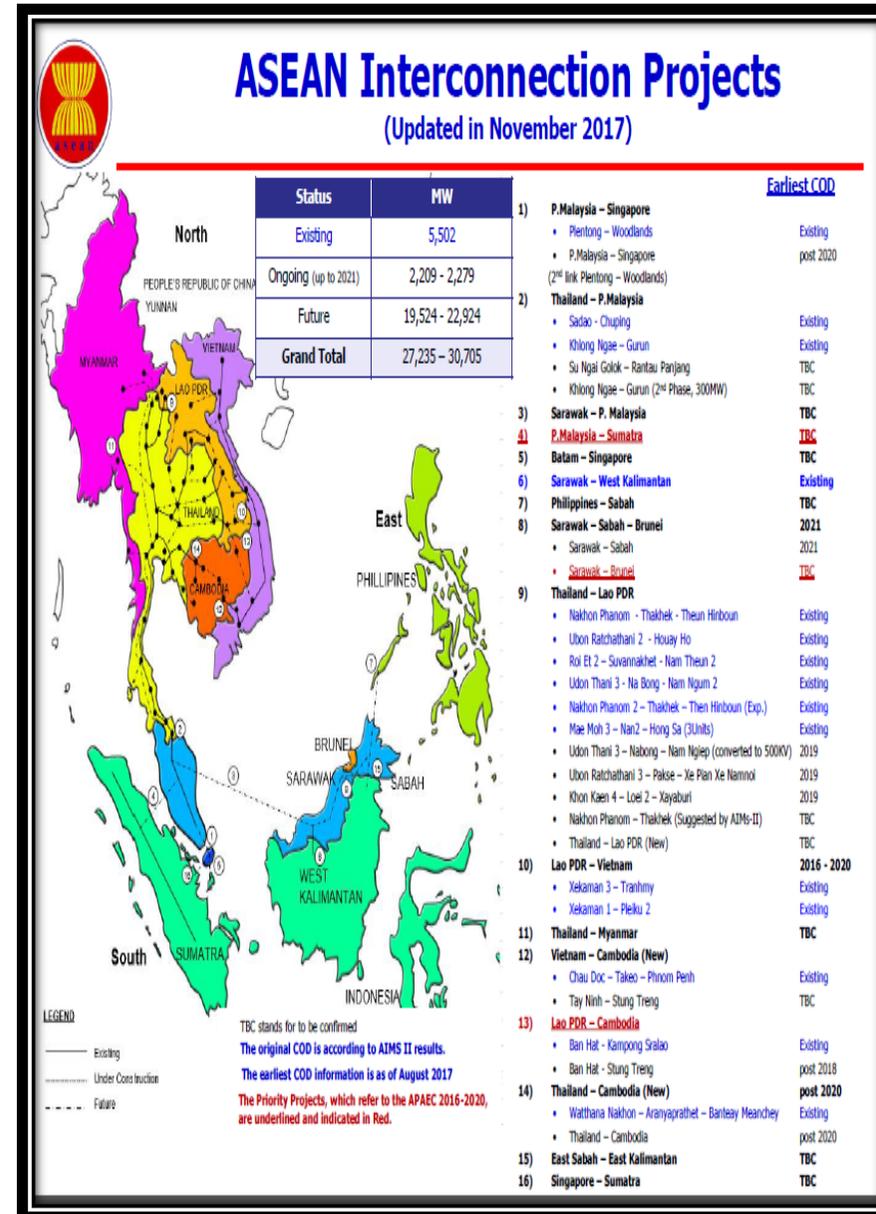
Whilst BRI may run in parallel with UN ESCAP and ASEAN's desired energy connectivity and regional cooperation, it may also invite response from Governments.

Countries do look for investors...those which are not endowed with resources and financial capacity will eye willing investors.

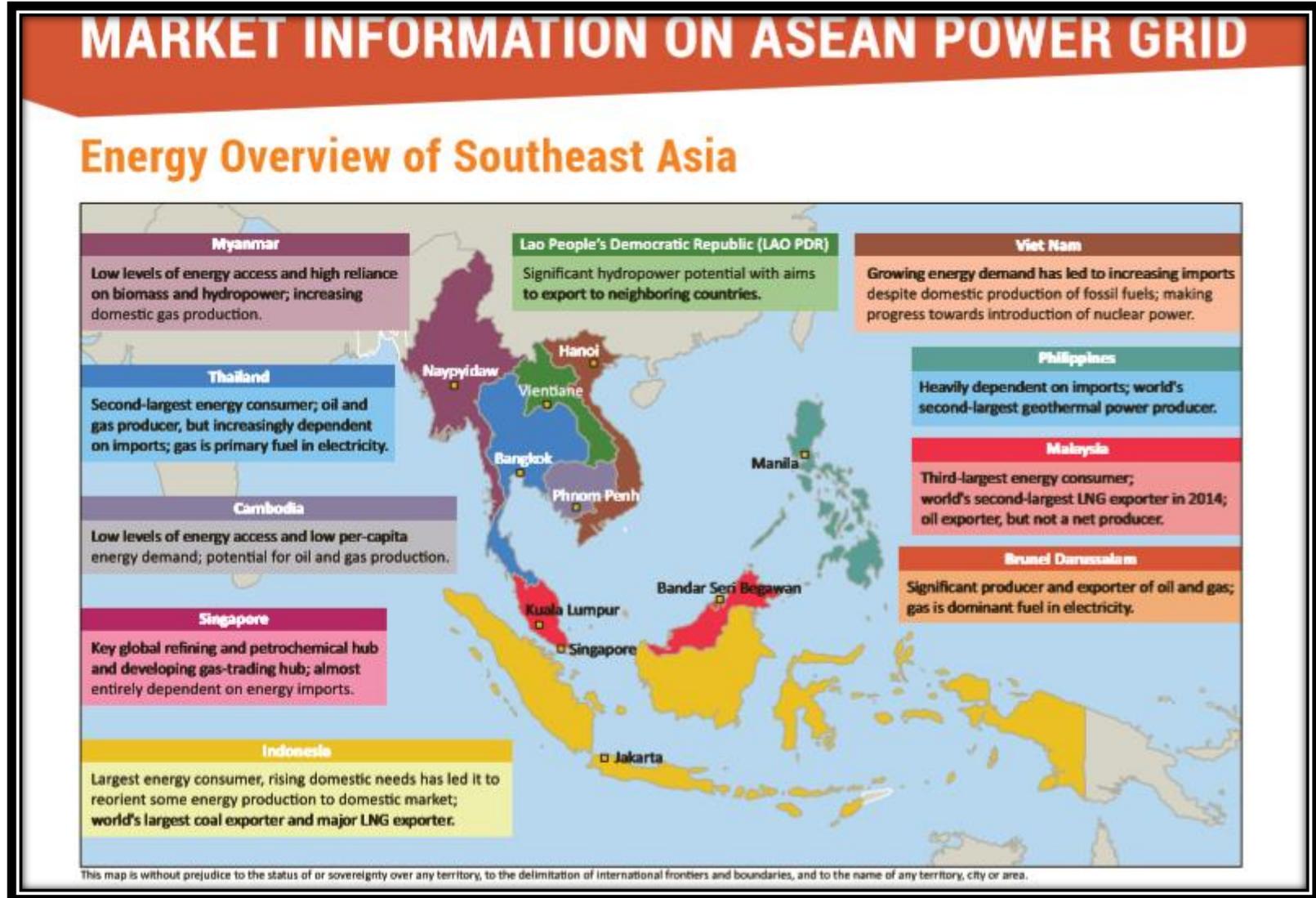
Yes, China has shown interest in several fields,

Some focal areas

- **Oil & gas fields – transferable molecules**
- **Power plants – mainstay in host countries**
- **RE – selling China's technologies and products**



C. Chinese investments to increase energy capacity in Southeast Asia & Malaysia (cont.)



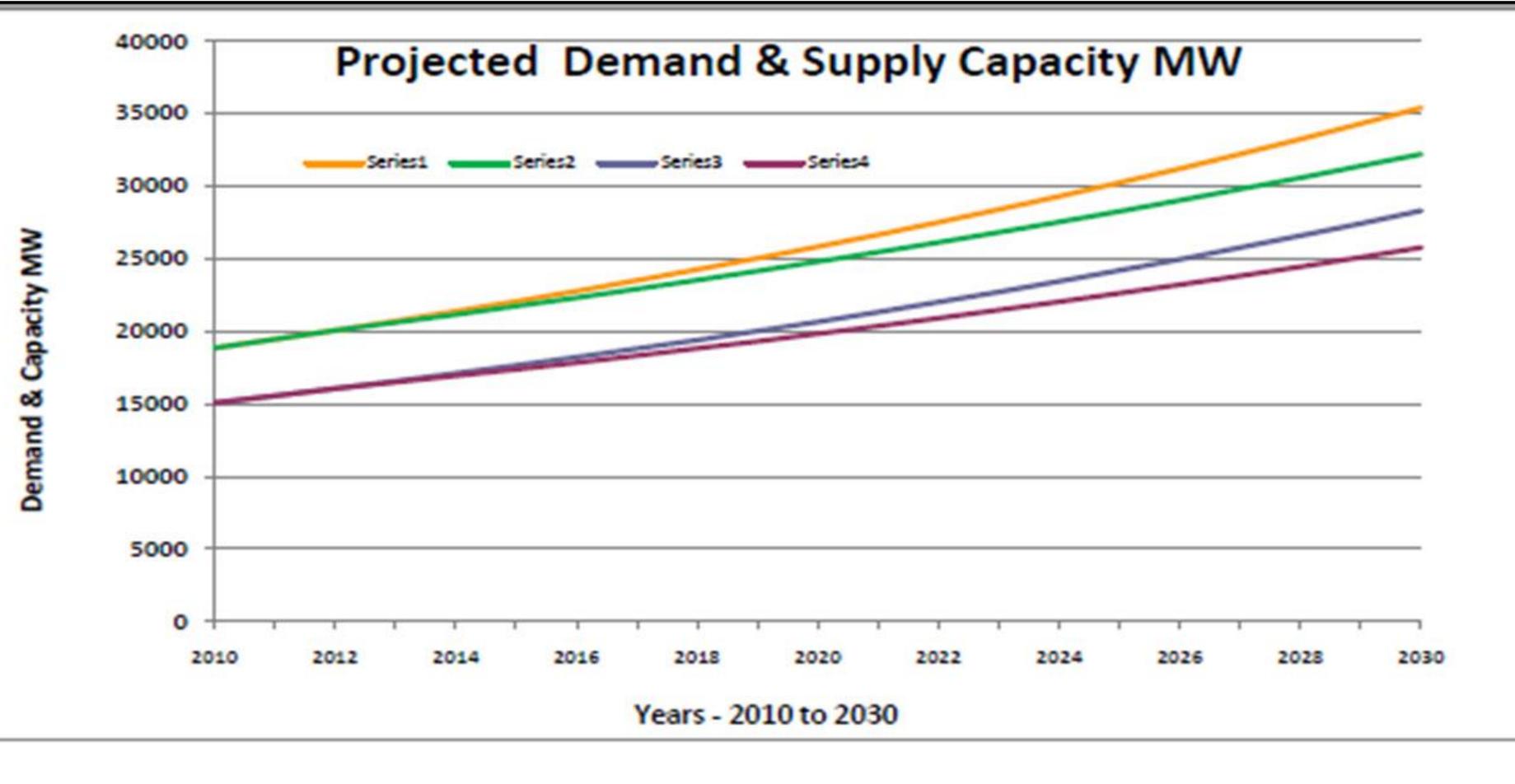
Source: ASEAN Power Grid Summit 2018 brochure

C. Chinese investments to increase energy capacity in Southeast Asia & Malaysia (cont.)

Southeast Asia

- China has been keen to involve in renewable energy projects in SEA
- In April 2017, four Chinese ministries were quoted as agreeable to recast OBOR as “green Belt and Road.”
[source: “Powering ahead to solve Southeast Asia’s energy challenges”. [Eco-Business](#) 2017.]
- Boleh hydro dam work involve contracts awarded to China’s Gezhouba Group Co Ltd

C. Chinese investments to increase energy capacity in Southeast Asia & Malaysia (cont.)



Legend: Series1 Gen Cap Req. MW (BAU), Series2 – Gen Cap Req. (EE), Series3 – MD growth (BAU), Series4 - MD growth (EE),

[Source: <http://www.christopherteh.com/blog/2012/07/electricity-msia-02/?print=print>]

C. Chinese investments to increase energy capacity in Southeast Asia & Malaysia (cont.)

Malaysia

Energy-related

A. Ongoing

China's acquisition of EDRA, Malaysia's second largest independent power producer in 2015.

China General Nuclear Power Corporation (CGN), via its subsidiary China Solar Energy Investment Ltd, acquired EDRA Global Energy Berhad for RM9.83bil cash.

Edra Global consists of Edra Solar Sdn Bhd, Edra Energy Sdn Bhd, Powertek Energy Sdn Bhd, Jimah Teknik Sdn Bhd, Jimah O&M Sdn Bhd, Mastika Lagenda Sdn Bhd etc where its operations for 13 IPP power plants span 5 countries i.e Malaysia, Egypt, Bangladesh, Pakistan and the UAE.

The sale was easily the largest announced M&A transaction in Malaysia and one of the largest in Asian power sector. It holds 15% of current electricity generation installed capacity.

[Source: <https://www.thestar.com.my/business/business-news/2015/11/23/1mdb-sells-edra-power-assets-to-china-firm-for-nearly-rm10b-cash/>]

What beckon:

EDRA's next project: 2242MW combined cycle gas turbine power plant in Alor Gajah, Melaka circa 2021. – Malaysia's largest CCGT and almost 10% of Malaysia's installed generation capacity in next decade

[Source: <https://www.thestar.com.my/business/business-news/2017/11/13/malaysias-largest-power-plant-to-begin-ops-in-2021/>]

C. Chinese investments to increase energy capacity in Southeast Asia & Malaysia (cont.)

B. Still working on the ground:

Chinese companies interested in pipeline works for TSGP and MPP. This has been confirmed from websites of the certain companies/institutions in China

To cite a source, China Petroleum Pipeline Engineering Co Ltd is conducting a feasibility study for two pipeline projects in Malaysia, according to Gao Jianguo, the GM at the company's southeast Asia project department. The two pipeline projects are the Trans-Sabah gas pipeline (TSGP) and the Multi Product Pipeline (MPP).

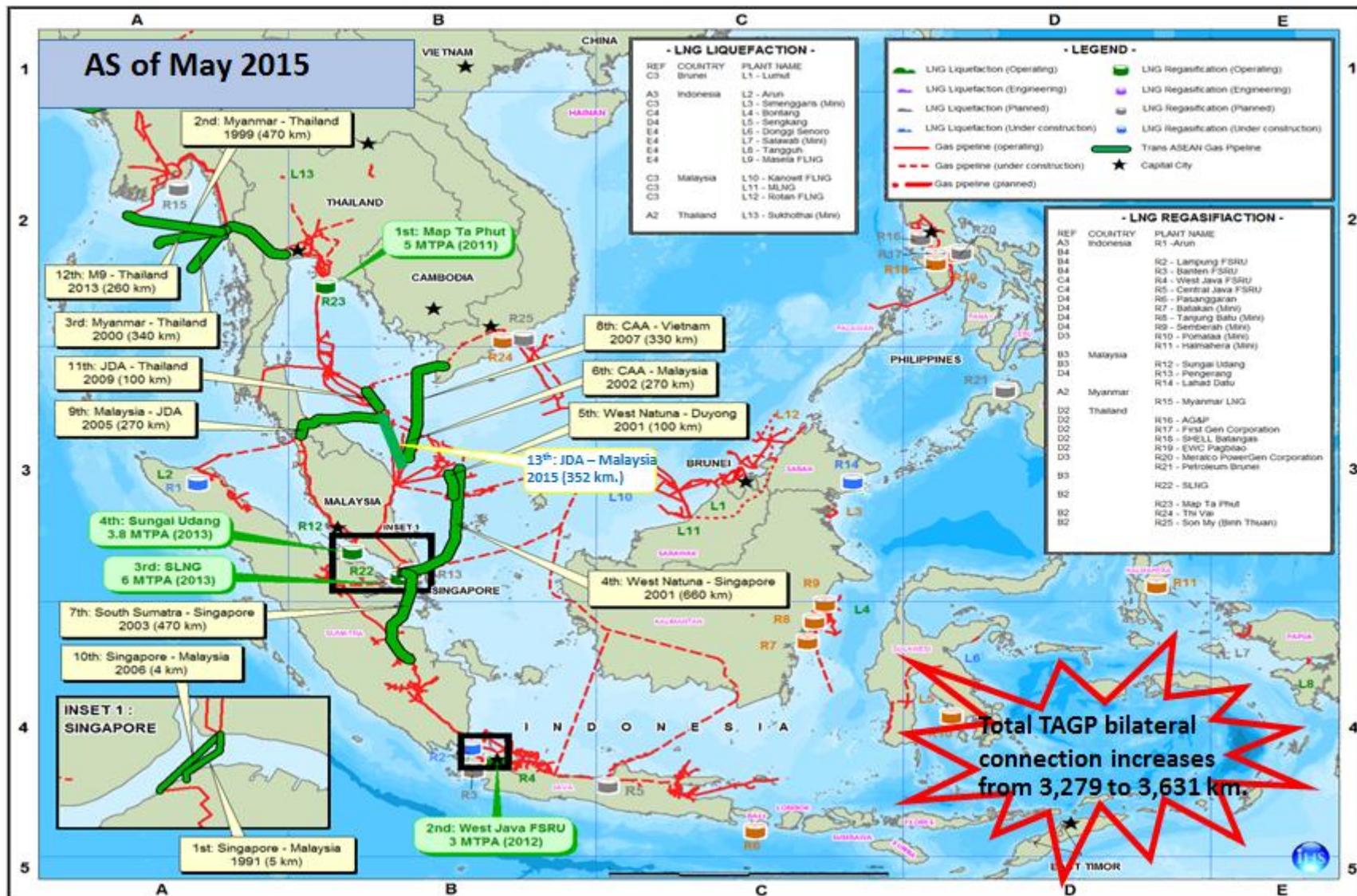
The total project investment, estimated by the Chinese sides, required for the two projects is about USD 1.86bn.

Financial/funding may involve Export-Import Bank of China (EIBC) and its associates. The engineering portion could be spearheaded by China National Petroleum Corporation (CNPC).

CNPC subsidiary has been conducting feasibility study

C. Chinese investments to increase energy capacity in Southeast Asia & Malaysia (cont.)

Trans-ASEAN Gas Pipeline (TAGP)

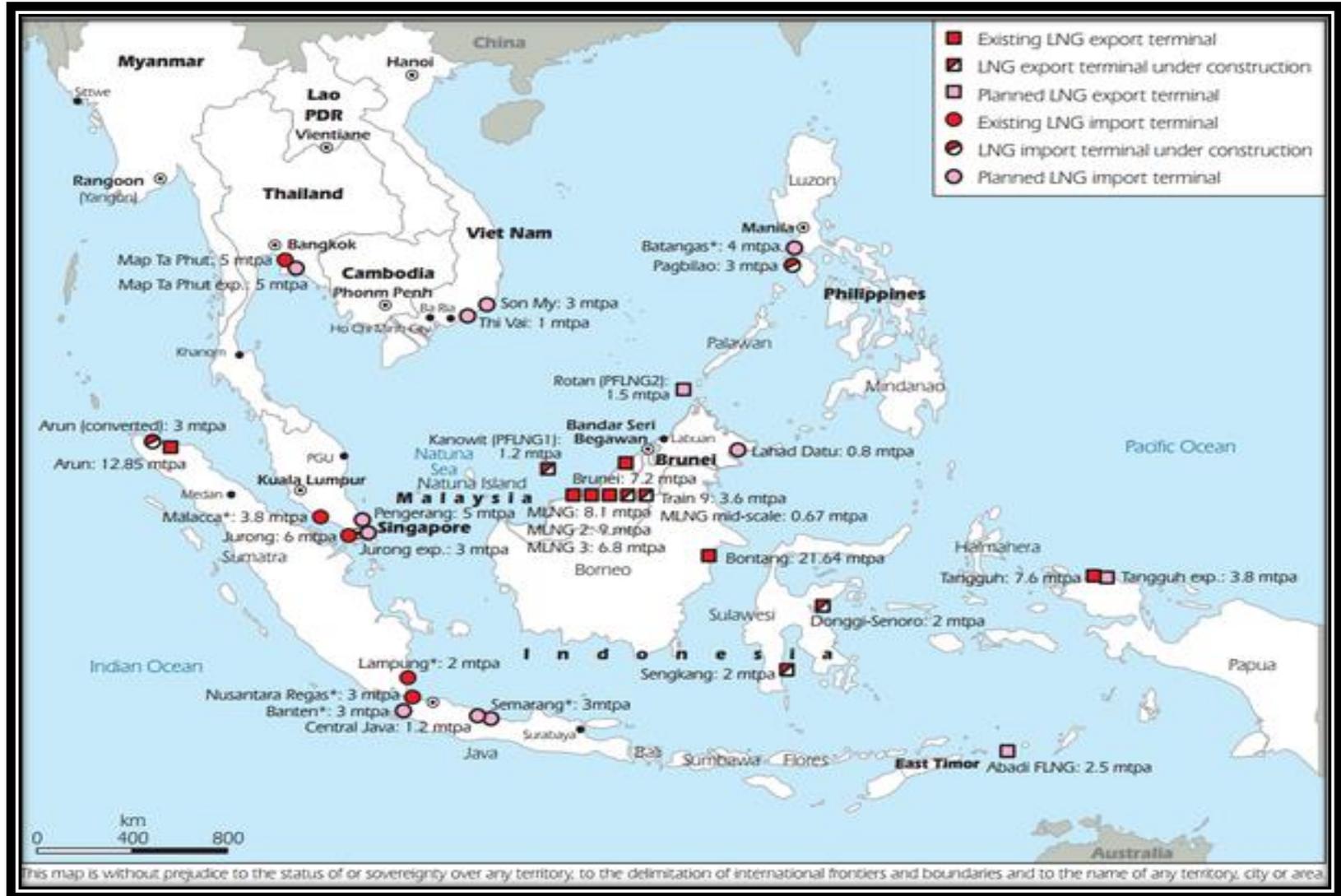


...strategic fit.

Like APG, TAGP were formalized and announced as a part of ASEAN Vision2020 in 1997.

C. Chinese investments to increase energy capacity in Southeast Asia & Malaysia (cont.)

LNG hub



...with security and trade in mind..

D. Impact

China:

- Benevolent partner/investor?
- Equity taking has bearing or influence in gen/energy mix of any country
- Value-adding?
- A few countries could be dependent
- 'Fearful' – respectful fear

Countries are "...bound deeply together with China" (Shambaugh, China Goes Global, 2013, p.102)

China's money trails are extensive, and could augur well for potential funding into some countries. Some detailed analysis on banking trails of China were carried out in Henry M. Paulson Jr 's Dealing With China, 2015.

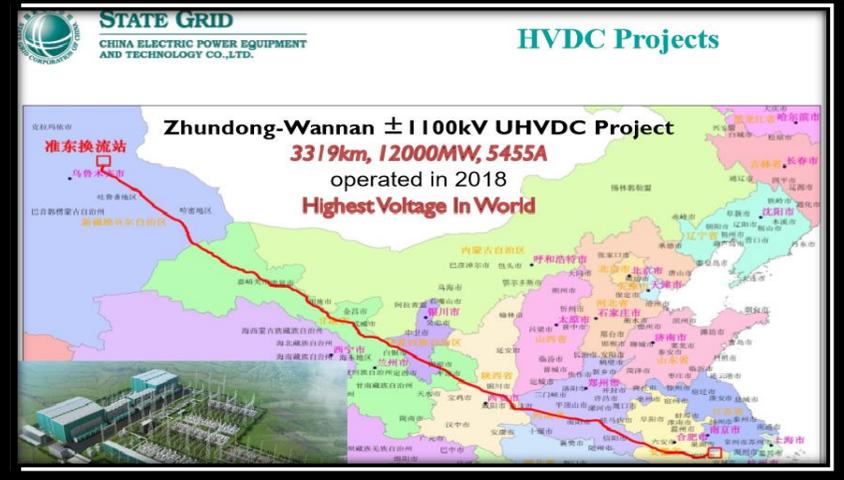
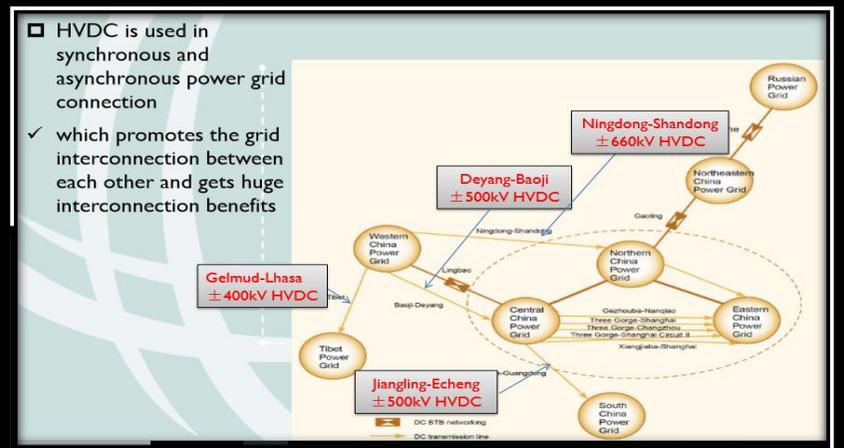
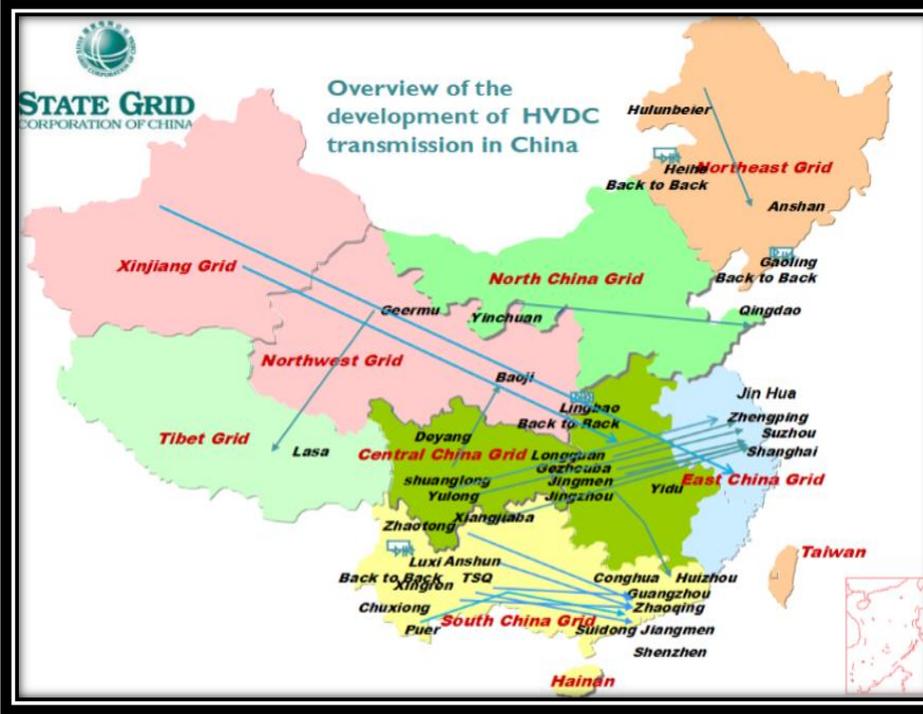
D. Impact (cont.)

What China brings?

- Projects
- M&A
- Equity taking activities
- Technologies – some are hi-tech and top-of-the-line
- ‘Soft loans’ – for the good or otherwise

D. Impact (cont.)

Cutting edge technology



[Source: Dr Guo Ricai, President, China Electric Power Equipment and Technology Co.Ltd. "Realising Power Grid Interconnection with Cutting-Edge Technologies". ASEAN Power Grid Summit 2018, Vientiane, Lao PDR, May 2018.]

D. Impact (cont.)

Normal agenda

- Selling Chinese energy-related products
- Conventional power plants
- China M&A eg EDRA – reminds us of CNPC acquiring PetroKazakhstan for USD4.2 billion. (Karnani, Aneel, ‘Dubious Value of International Acquisitions by Emerging Economy Firms’, Global Strategies for Emerging Asia, 2012.

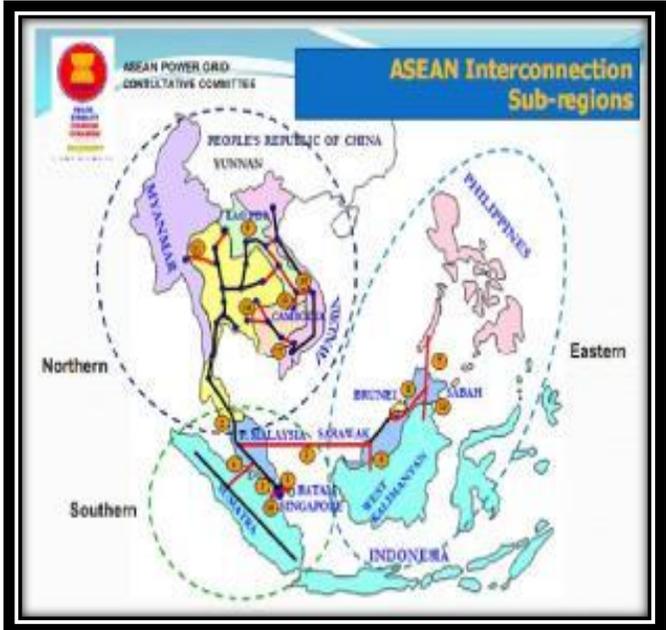
- Urbanization drive template using smart energy products from China
- One scenario: Getting ASEAN Power Grid up and running to connect with China’s UHV or U-HVDC
- China eyeing Myanmar’s pipelines, Indonesian coal, Malaysia’s LNG, various crude oil imports
- Technology leadership – thin film solar technology
- Mining operations– not yet

- ASEAN-China Free Trade (CAFTA)
 ASEAN+3 includes the 10 member states of the Association of Southeast Asian Nations (Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam) plus the PRC , Japan, and Korea.
- Strong role of Asian Infrastructure Investment Bank (AIIB). AIIB is a multilateral development bank that aims to support the building of infrastructure in the Asia-Pacific region. ...has 64 member states with 22 being prospective candidates. [source: Wikipedia]

D. Impact (cont.)

Power Interconnection & connectivity

Future: Inter-region and Northeast Asia – China with its UHV and with U-HVDC, and beyond...



D. Impact (cont.)

Not the conventional and usual stuff:

- Creation of new China cities abroad
- Advocacy of (Chinese-manufactured) nuclear power plants
- Powering and creating a hub in disputed islets in South China Sea

D. Impact (cont.)

Downside, uncertainties

A. How to solve disputes?

- Need a fully functional dispute resolution or alternative dispute resolution modalities
- If they do not work, would arbitration could be relied upon?

B. Potential unmitigated debts for a few nations

Sovereignty and huge debts (...could lead to insolvency)

D. Impact (cont.)

Myths?

1. Chinese companies will bring their own Chinese workers
 - Partly true. Chinese companies may want to ensure their competitiveness (during bidding) by bringing the labor costs down, but some have employed local workers depending on how tight the agreements have been crafted...some host governments would have put their hand down in guaranteeing local job creation.

2. Chinese investment will 100% utilize Chinese companies?
 - In the case of the new Melaka 2242MW CCGT power plant, the engineering procurement construction (EPC) contractors are mostly Koreans (Hyundai)

3. Chinese companies want to utilize their indigenous technology and products
 - Partly true..Again maybe to bring their prices down. But they have also developed some capacity and capability. Their equipment technologies such as switchgear used in transmission are competitive. [State Grid Corporation of China (SGCC) is the largest power utility in the world and its subsidiary China Electric Power Equipment and Technology Co. Ltd is world leader in Ultra HVDC and Ultra High Voltage (UHV).

4. Would huge debt could become a spectre in energy-related projects
 - Shouldn't materialize....there's benchmarks for energy projects...even we could easily see potential gold-plated projects if they break the norms and ceilings

E. Challenges for Chinese companies

- Language
- Over-patronizing
- Over-reach itself – over risking and rationalization by financial authorities back home to scale back investment
- Satisfying governments over time
- *Faux pas* - if any....but it is more of cultural

F. Other issues – Energy geopolitics and Geostrategy

- On the world stage, US and Russia are not the only elephants in the room
- China and India suddenly are emerging players and may even eclipse US and Russia
- These are supported by economic and population forecasts
- So are energy data
- G-to G, China may come with full package to offer – including military

Thank you!

Some analytical works and published materials

Gupta, Anil K, Toshiro Wakayama, U. Srinivasa Rangan ed. *Global Strategies for Emerging Asia*. Jossey-Bass- A Wiley Imprint, San Fransisco, USA, 2012.

Huang, Yukon. *Cracking the China Conundrum – Why Conventional Economic Wisdom is Wrong*. Oxford University Press, New York, 2017.

Special Feature on China's New Silk Roads. *Global Asia* Volume 10 Number 3 Fall 2015. East Asia Foundation, Seoul, Korea

Jae, Ho Chung. "Views from Northeast Asia: A Chinese-Style Pivot or a Mega-Opportunity?:", *Global Asia* Vol.10, No.3, Fall 2015. East Asia Foundation, Seoul, Korea

Li, He Jun. *China's New Energy Revolution* [-on thin film solar technology]. McGraw Hill Education LLC, New York, 2015

Paulson Jr., Henry M. *Dealing With China: An insider unmask the new economic superpower*. Twelve Hachette Book Group, New York, 2015.

Shambaugh, David. *China Goes Global: The Partial Power*. Oxford University Press, 2013.

Sheng, Andrew. 'The Future of 'Normal Economics' in Asia. *Global Asia* Vol.11, No.3 Fall 2016. East Asia Foundation, Seoul, Korea.

Weifeng, Zhou. "New Dynamics in Sino-Myanmar Relations". *Global Asia* Vol.11, No.3 Fall 2016. . East Asia Foundation, Seoul, Korea.

Some analytical works and published materials (cont.)

Zhao Hong. Chinese and Japanese infrastructure investment in Southeast Asia: from rivalry to cooperation?”. Institute of Developing Economies, Japan External Trade Organization (IDE-JETRO) IDE DISCUSSION PAPER No. 689 <http://www.ide.go.jp>. February 2018