

Southeast Asia Energy Needs & Solar Diplomacy Opportunity

China Environment Forum
The Wilson Center

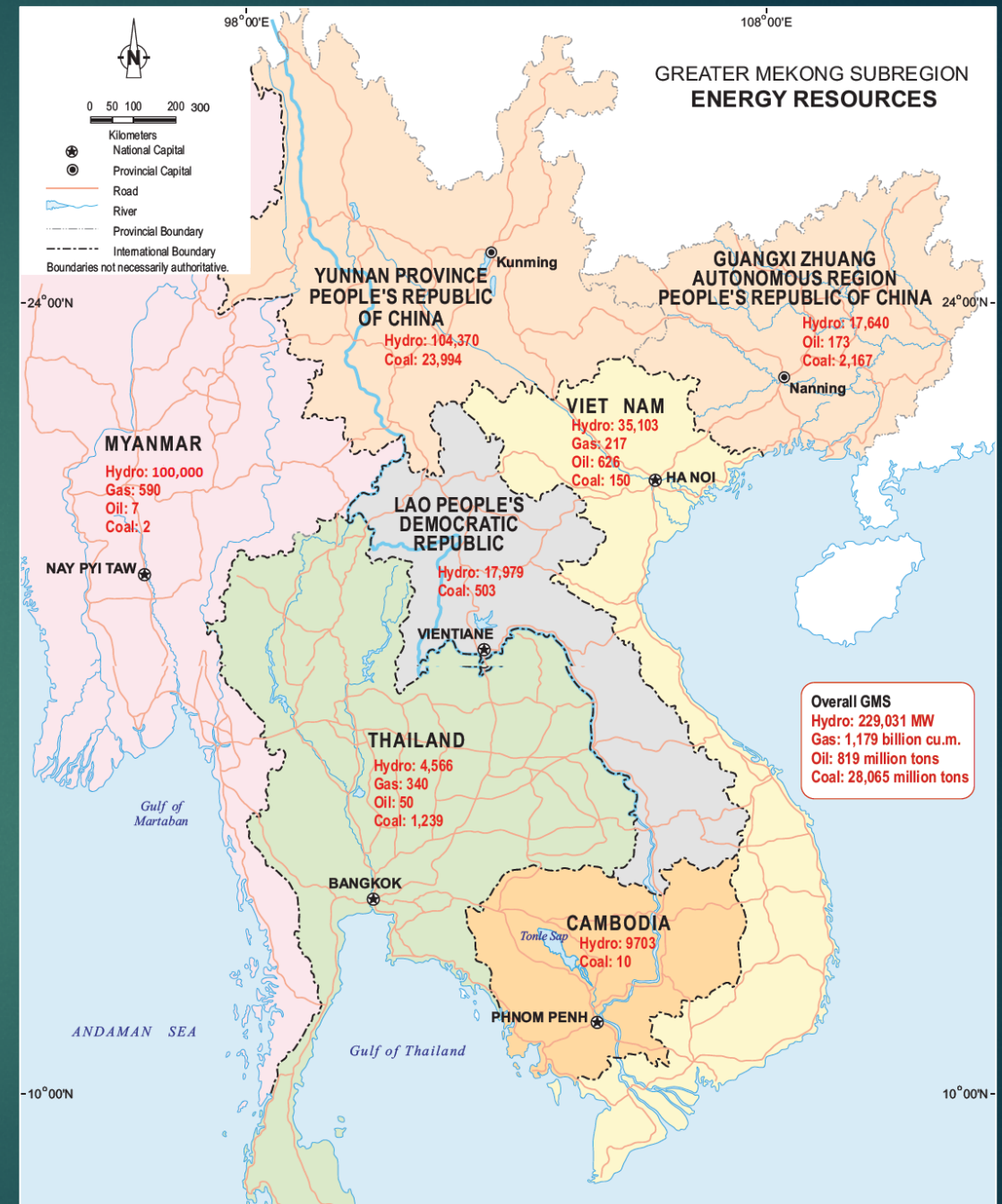


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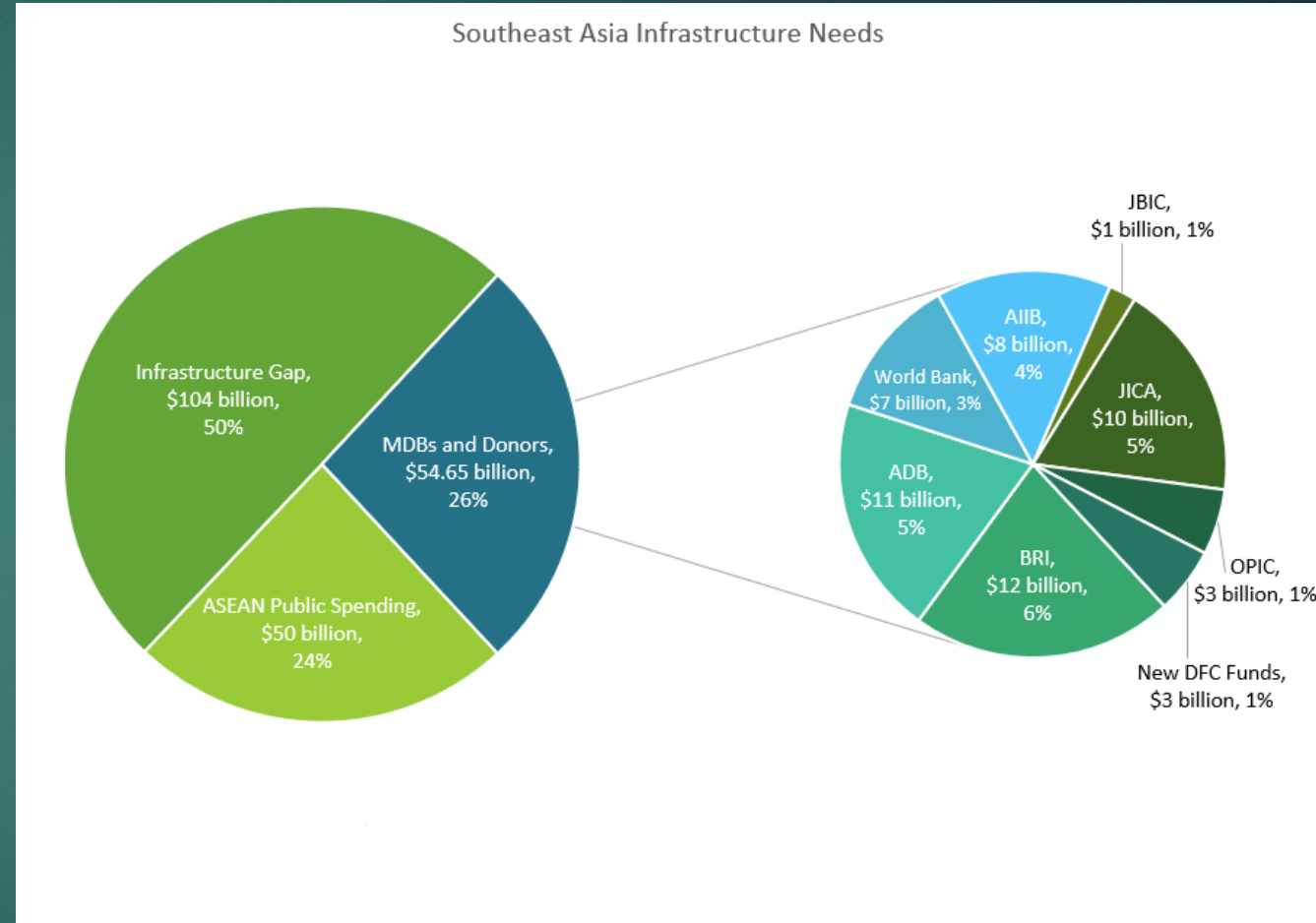
Regional Energy Context

- The price of non-hydropower renewables is globally dropping more quickly than anticipated.
- Innovations in energy transmission and distributed grid structures are disrupting traditional infrastructure and utilities models.
- Hydropower and coal externalities attract pushback, increasingly forcing changes in the location, design, type, and size of new power plants.
- Adaptation to these shifts requires a whole-system and long-term perspective.



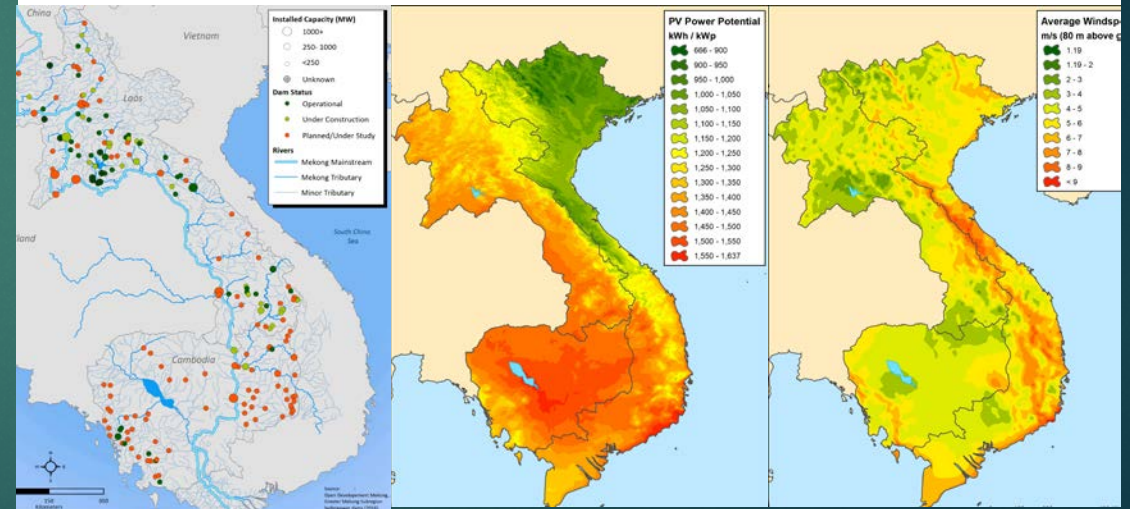
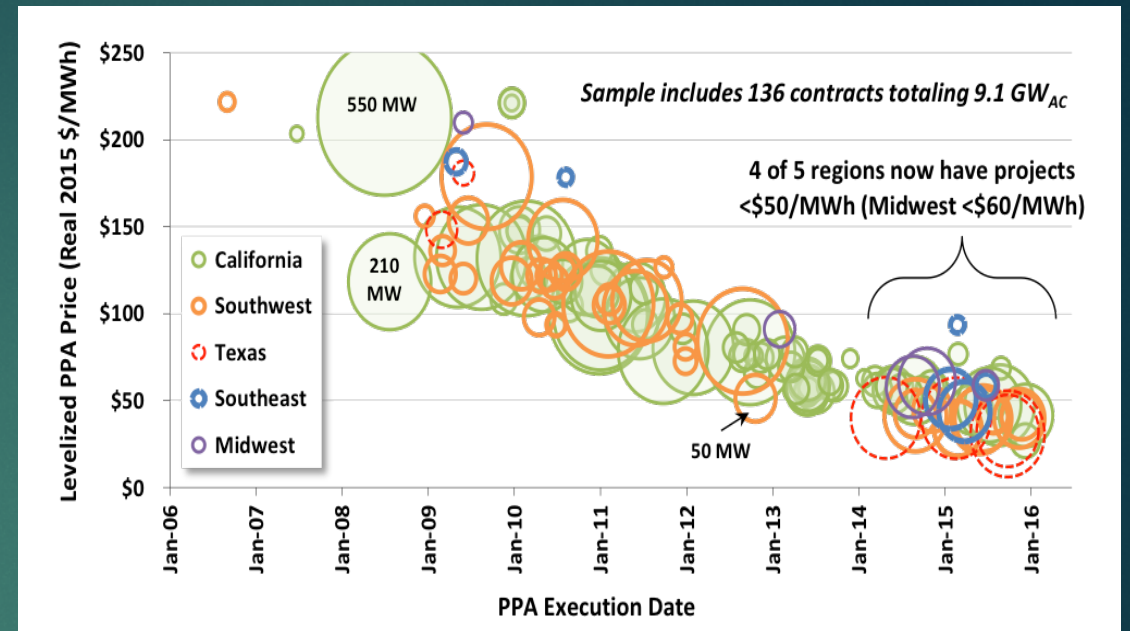
Regional infrastructure needs

- ▶ Southeast Asia needs \$2.7 - \$2.9 trillion invested in energy through 2030
 - ▶ \$570 billion for generation
 - ▶ ASEAN needs 5-6% of regional GDP annually to 2030
 - ▶ Current infrastructure spending averages \$50 billion/year, about half that amount
 - ▶ All annual spending on energy infrastructure from MDBs only hits a portion of what's needed
- ▶ No individual country can meet this
- ▶ Meeting the infrastructure gap will require collaboration between development partners and catalyzation of private sector actors



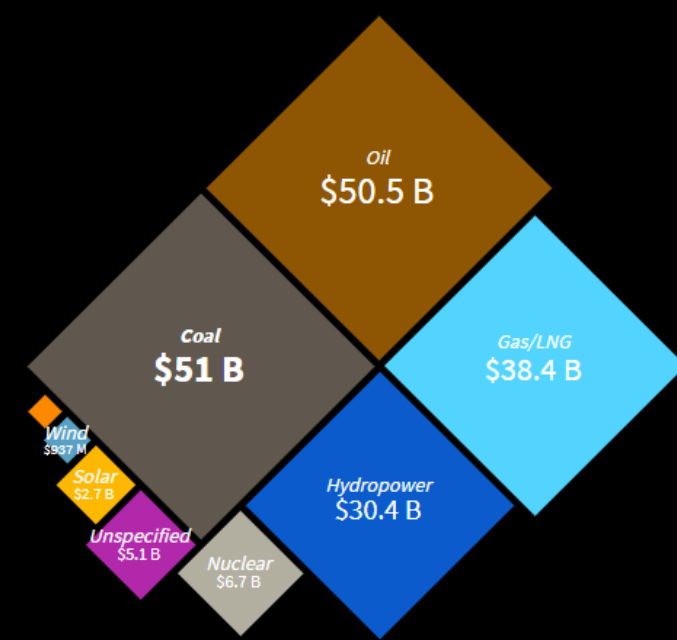
Energy Market Shifts

- ▶ Between 2009 and 2016, prices dropped more than 80% for solar and 60% for wind
 - ▶ 2015-16 drops in global price of commercial-scale solar (13%) and wind (10.75%)
- ▶ Factors:
 - ▶ Economies of scale
 - ▶ Overcapacity in China
 - ▶ Clarity of policy and regulatory regimes
 - ▶ Auction systems
 - ▶ Alternative financing options
- ▶ **Renewable technologies are now competitive on an economic basis in many countries**

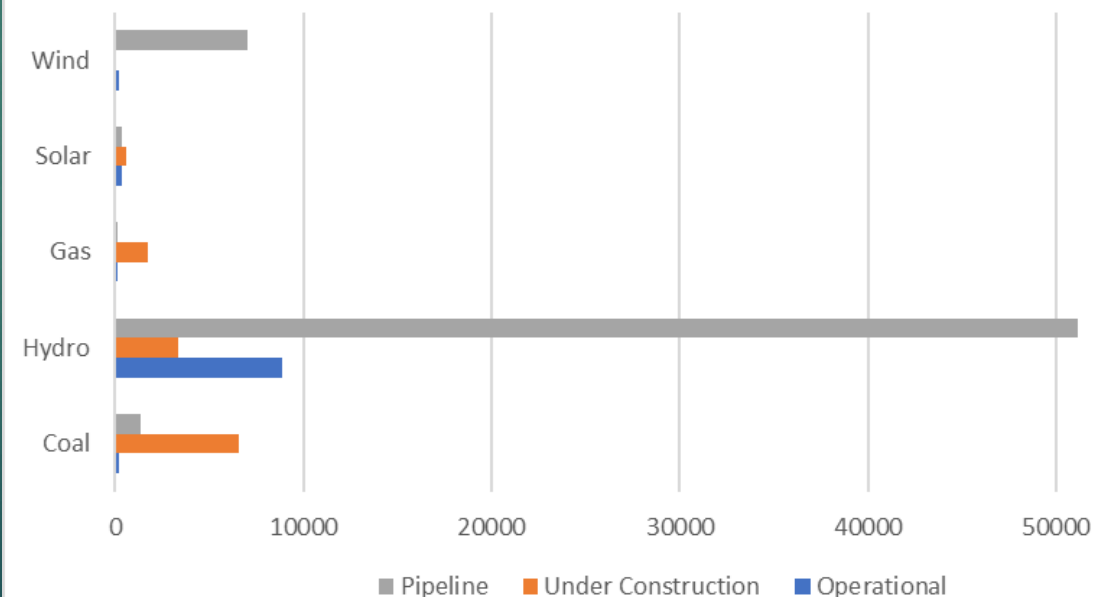


China's Energy Investments

- ▶ The energy and transport sectors have each received approximately 1/3 of total BRI financing and make up most of the projects financed to date
- ▶ BRI financing in the energy sector is targeted towards fossil fuel and hydropower projects
- ▶ Solar is under-represented as a portion of Chinese energy investments in the Mekong region
- ▶ Rising interest from Mekong countries poses an opportunity



Chinese BOT/EPC Power Generation Projects in CLMVT (MW)





Thank you!
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