

# Building Stakeholder Consensus in Cross-Border Power Trade

The first in a Spring 2020 series of webinars from the  
Clean Energy Ministerial Regional and Global Energy Interconnection Initiative  
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**Speaker: Edmund Downie (Analysis Group)**

**Event Link: <https://global.gotomeeting.com/join/537210189>**



Edmund Downie is an analyst at Analysis Group, supporting energy-sector clients in market design and litigation proceedings in North America. As a 2017–2018 Fulbright Scholar at Yunnan University in China, he studied the politics of cross-border power trade in Southeast Asia. His research report, “Powering the Globe: Lessons from Southeast Asia for China’s Global Energy Interconnection Initiative and the Future of the Electric Grid,” is forthcoming with Columbia University’s Center on Global Energy Policy (spring 2020).

## **About the Regional and Global Energy Interconnection (RGEI) Initiative**

The RGEI Initiative was established at the 9th Clean Energy Ministerial (CEM) meeting in Copenhagen/Malmö in May 2018. RGEI’s objectives are to:

- Discuss conducive policy and regulatory frameworks for regional power system integration
- Build consensus on facilitating energy transition via increased proportion of renewable energy in energy consumption and enhanced grid interconnection
- Encourage CEM member countries to engage in the process of RGEI and seize collaborative opportunities

RGEI works with other regional and national technical organizations in the field of power system integration including State Grid Corporation of China, the Korea Electric Power Corporation, and others.



# Building Stakeholder Consensus in Cross-Border Power Trade

## The Politics of Grid Interconnection

Edmund Downie

Analysis Group

Regional and Global Energy Interconnection Initiative

Clean Energy Ministerial

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# Outline

- **Grid Interconnection Today: An Overview**
- **Role of Political Will in Grid Interconnection**
- **Politics and Cross-Border Infrastructure**
- **Politics and Regional Institution-Building**

# Grid Interconnection: State of Play

- **Global electricity trading volumes are low**
  - Cross-border trades comprised 3% of all electricity consumption in 2015, though there is significant regional variation
- **But growing enthusiasm for electricity exchange in many regions of the world**

# The Politics of Grid Interconnection

*“If there is one overriding requirement for regional integration to be successful, it is that the countries need to have the political will to cooperate with their neighbors ...”*

-- *The Potential of Regional Power Sector Integration*, Economic Consulting Associates, 2010 report for World Bank

# Politics in Grid Interconnection

- **Potential political pros**
  - Economic efficiencies, cost savings, and reliability gains
  - Regional solidarity
  - Access to low-carbon resources
- **Potential political cons**
  - National-security risks of interdependence
  - Environmental impacts of cross-border infrastructure development
  - Displacement of local generation and concessions in domestic utility-sector “sector sovereignty”

# Politics in Grid Interconnection

- Siting cross-border infrastructure
- Establishing regional intergovernmental institutions

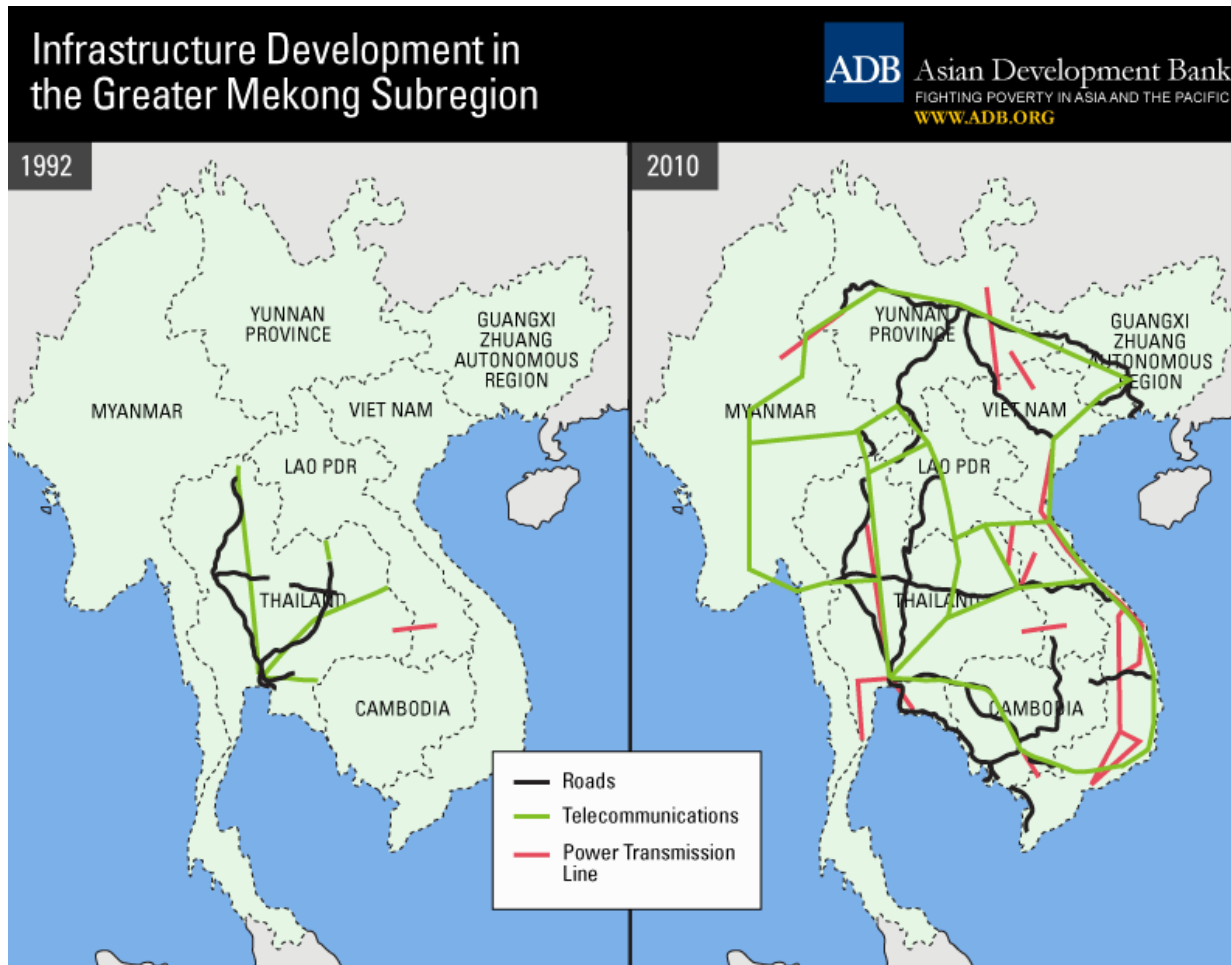


# Siting Cross-Border Infrastructure





# Siting Cross-Border Infrastructure in Southeast Asia: Large Dams



# Siting Cross-Border Infrastructure in Southeast Asia: Large Dams

- 2010 Energy Master Plan: Myanmar + Laos hydropower replacing thermal development in China, Vietnam, Thailand

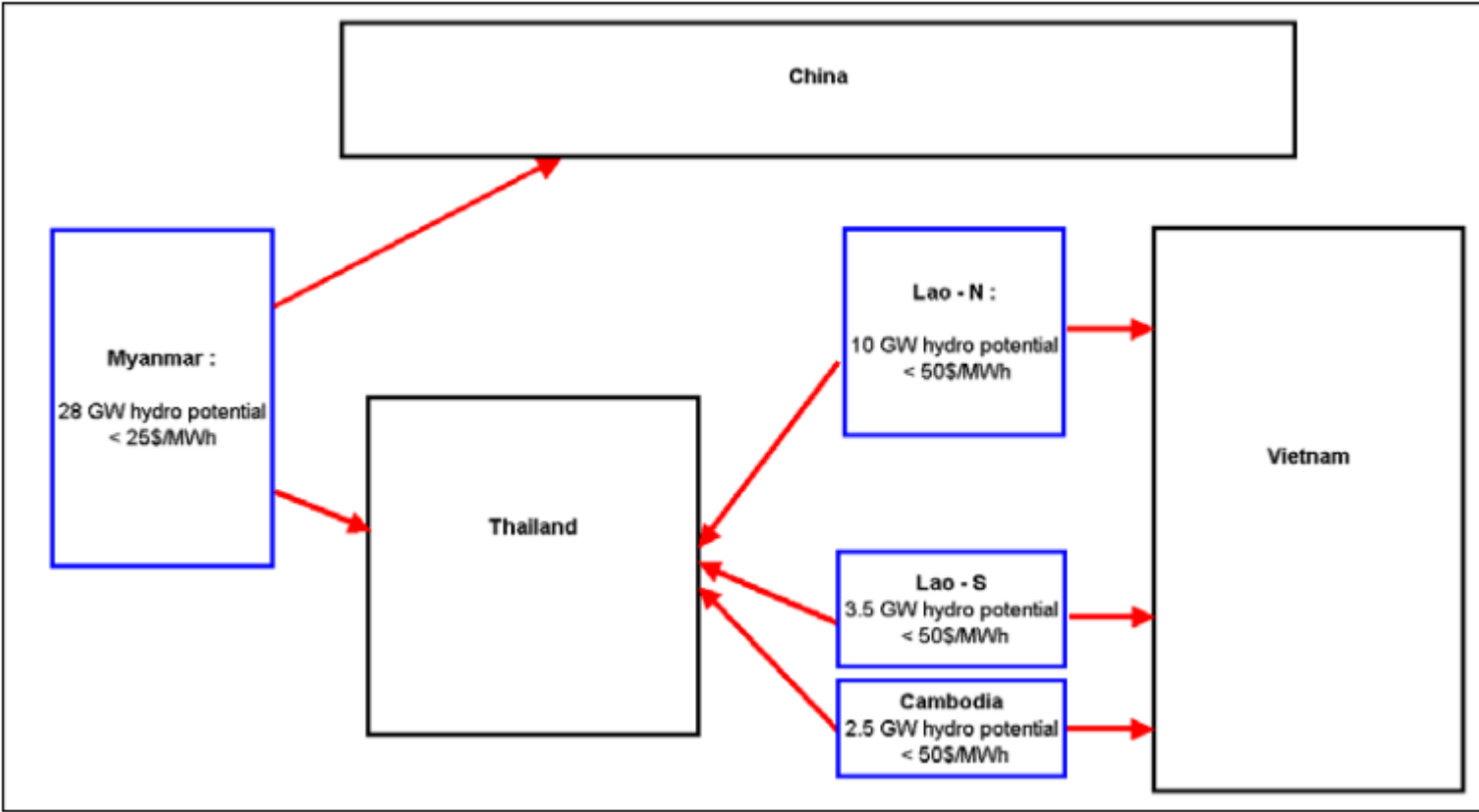
Importing country	Import in 2025	Percentage of country 2025 peak demand <sup>17</sup>
China	18 900 MW (from Myanmar)	14%
Thailand	Total import : 7 700 MW - 5100 MW from Laos N & C - 150 MW from Laos S - 2100 MW from Myanmar - 330 MW from Malaysia	15%
Vietnam	Total import : 5100 MW - 2600 MW from Laos-N & C - 2100 MW from Laos-S - 400 MW from Cambodia	6.5%

Source: GMS 2010 Energy Master Plan

Note: Chinese peak demand reflects peak demand of Guangxi and Yunnan provinces as well as projected exports to Guangdong

Table 6.3-9 : "Base case": level of imports

# Siting Cross-Border Infrastructure in Southeast Asia: Large Dams



GMS 2010 Master Plan: 2025 Interconnection Vision

# Siting Cross-Border Infrastructure in Southeast Asia: Large Dams



*Myitsone Dam, Myanmar*

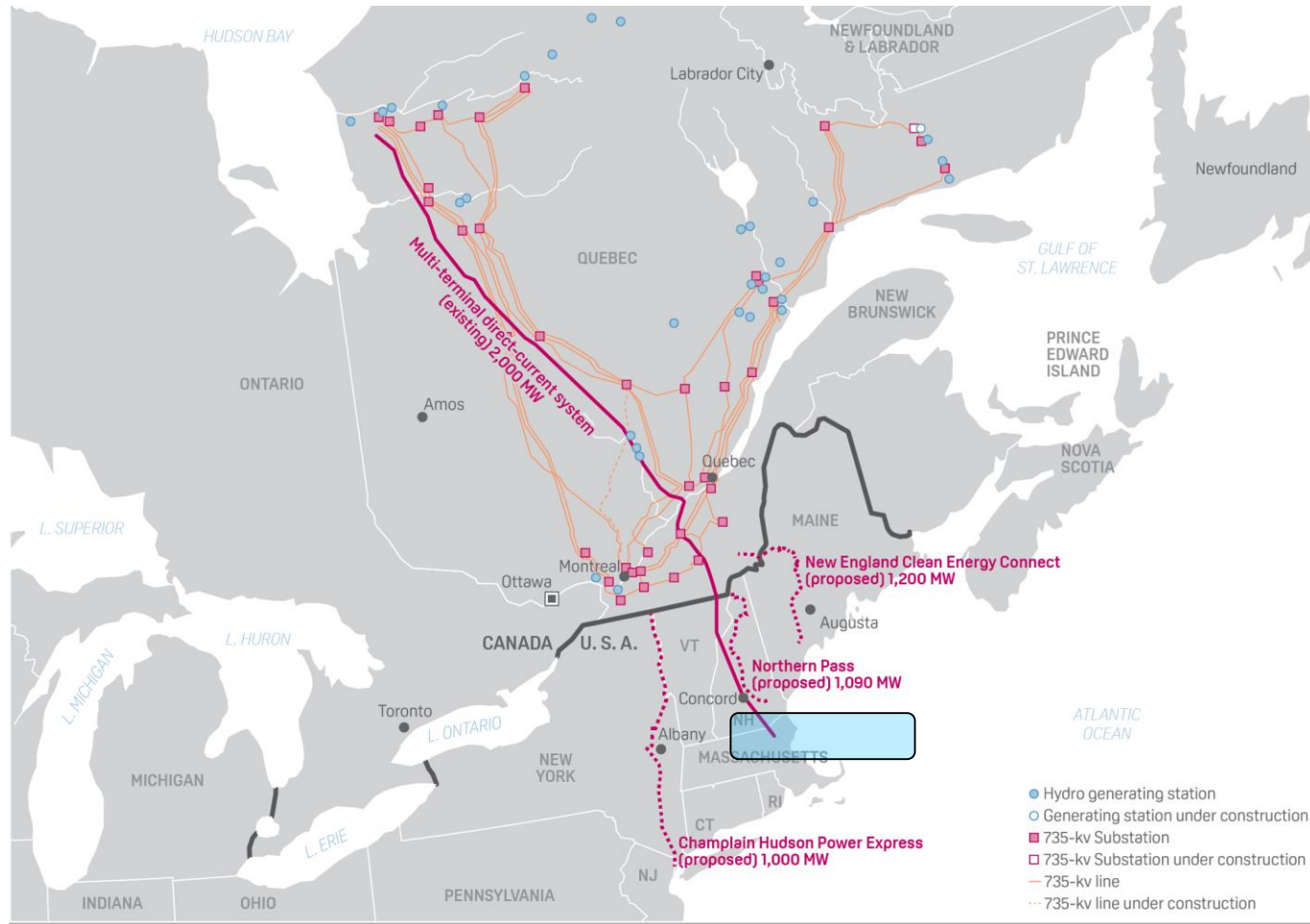


*Nam Ngiep 1, Laos*

# Siting Cross-Border Infrastructure in North America: Transmission Projects

- A comparison of two cross-border transmission line projects in North America
  - Northern Pass (eastern Canada/U.S.): Quebec (Canada) to Massachusetts (U.S.)
  - Great Northern Transmission Line (central Canada/U.S.): Manitoba (Canada) to Minnesota (U.S.)

# Siting Cross-Border Infrastructure in North America: Transmission Projects





# Siting Cross-Border Infrastructure in North America: Transmission Projects





# Infrastructure Siting: Building Consensus

- Proactively incorporate political risk assessments into project evaluations
- Examine ways to proactively incorporate and address concerns *of both government and non-government stakeholders*

# Intergovernmental Institution-Building

- **Regional institutions and grid interconnection**
  - Tasks from regulatory harmonization and stakeholder convening ...
  - ... to market operations, regional planning, and even regional dispatch
- **Institutional demands of interconnection efforts can vary ...**
  - ... but the more states involved, the more important it is to have formalized intergovernmental institutions to oversee power-trade efforts

# Intergovernmental Institution-Building

- **Comparing the politics of establishing intergovernmental institutions in power trade**
  - Europe's Internal Electricity Market
  - The Southern Africa Power Pool (SAPP)
  - The Greater Mekong Subregion's power trade initiative
- **Key elements that shaped their institutional trajectories**
  - Interstate trust
  - The presence of existing institutional frameworks for political negotiation
  - “Political windows” and opportunities for issue linkages

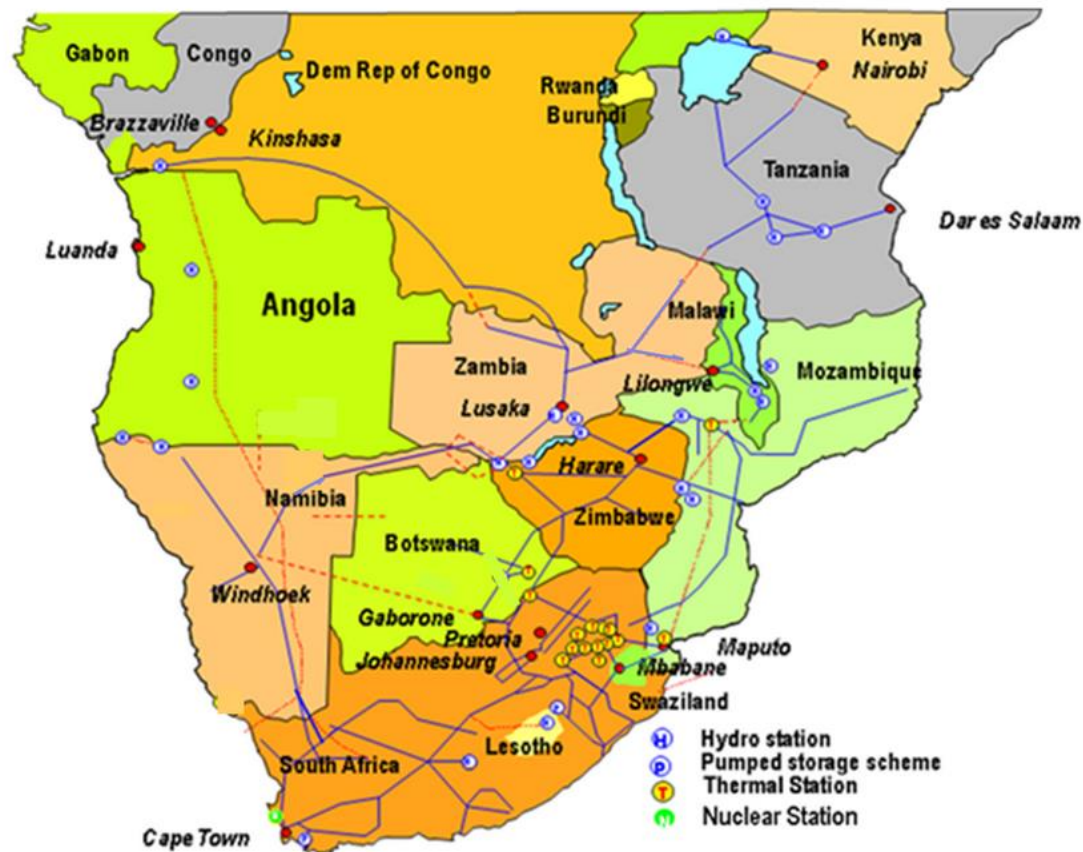
# Intergovernmental Institution-Building: Europe and Southern Africa



Figure 5 Power flows between countries in Europe (2015)  
Source: ENTSO-e, Statistical Factsheet 2015<sup>7</sup>

# Intergovernmental Institution-Building: Europe and Southern Africa

SAPP SADC Grid Map



# Intergovernmental Institution-Building: Southeast Asia

- **Greater Mekong Subregion (GMS) power interconnection:**
  - 1992: formation of the GMS Program Initiative under the Asian Development Bank (ADB)
  - 2002: establishment of Regional Power Trade Coordination Committee (RPTCC)
  - **2013: MoU to establish Regional Power Coordination Center to serve as permanent secretariat for RPTCC**

# Intergovernmental Institution-Building: The “Power Politics” of Power Pools

- The IEM and SAPP vs. the GMS
  - Interstate trust
  - Existing regional institutions in which to embed negotiation
  - Political windows and issue linkages



# Conclusion

- **Building stakeholder consensus: key takeaways**
  - Cross-border infrastructure: political risk assessments and multi-stakeholder engagement to head off us-vs.-them dynamics
  - Intergovernmental institution-building: the value of trust-building gestures, regional political forums, and “issue linkage” strategies for creating the conditions for institutionalization

# Thank you!

Edmund Downie

Analysis Group

[ned.downie@gmail.com](mailto:ned.downie@gmail.com)