

Regional Power Grid Connectivity in North-East Asia

Role of Intergovernmental/Multilateral Agreements

1 November 2018

Energy challenges in the Asia-Pacific

- ▶ Regional energy use is projected to nearly double from 2010 to 2035 due to strong growth of population and GDP
- ▶ Insufficient supply or interruptions hamper many developing countries' economies
- ▶ More than 400 million populations in the region do not have access to electricity
- ▶ the share of modern renewable energy in the overall energy mix is stagnating
- ▶ Most of the region's conventional energy resources are highly concentrated: total energy resources in five countries account for more than 85 per cent of the total energy resources in the region

Challenges to Regional Energy Connectivity

- ▶ Electricity is an inherently strategic commodity
- ▶ The efforts to engage in deep integrated electricity trading faces political, regulatory, technical, and economic/financial challenges

Political

- a) Lack of political will or political support to promote interconnections
- b) Government policy that does not support interconnections
- c) National priorities that focus on domestic issues without considering transboundary power trade

Regulatory

- a) Investment restrictions
- b) Lack of competition
- c) Trade barriers
- d) Lack of legal/regulatory framework
- e) Lack of institutional arrangements

Technical

- a) Uncoordinated planning
- b) Incompatible technical standards
- c) Lack of expertise

Economic/financial

- a) Electricity subsidies
- b) Uncertain laws and policies
- c) Lack of access to capital and investment

Strategies to Increase Interconnection

- Establishment of an integrated regional power market should be pursued in a gradual fashion
- requiring broader commitment to trade
- power trade can become the focus along the economic cooperation within the region

Strategies to Increase Interconnection



Bilateral

Multilateral

**Integrated regional
power market**

1. Trade agreements promote the establishment of trust, which is essential for power trading
2. With the expansion of interconnectors, other countries can join the network and develop short-term markets and harmonized rules, grid codes and tariffs
3. With growing trust, countries can develop a deeply integrated system, with a range of competitive markets and regional regulatory bodies
4. The establishment of a non-binding agreement can pave the way for a binding treaty

Role of intergovernmental agreements

1. Policy planning & coordination
2. Cost and benefit sharing
3. Regional market regulations/institutional mechanism on power trade
4. Operation, safety and security rules and regulations
5. Synergies and harmonization of standards, pricing. subsidies
6. Information (data...) sharing
7. Joint cross border infrastructures
8. Facilitate investment and partnerships/PPP

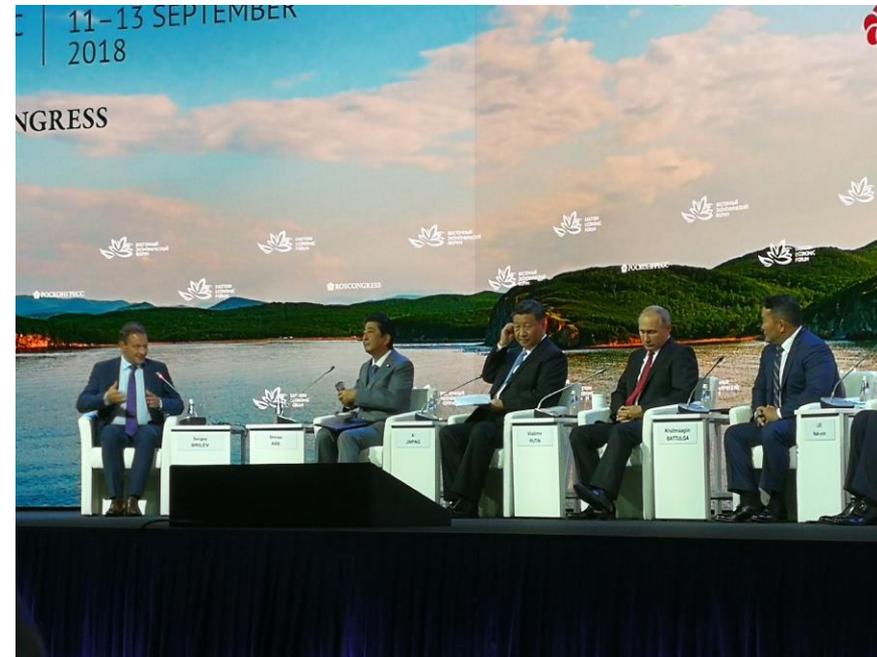
Good practice: The Asian Highway Network

- ▶ The Intergovernmental Agreement on the Asian Highway Network is the first treaty to have been developed under the auspices of the UNESCAP secretariat and deposited with the Secretary-General of the United Nations
- ▶ It provides a framework for coordinated development of the international highways in Asia, as well as between Asia and Europe, giving the member countries a platform to discuss technical and institutional issues to improve the quality of the network and increase the efficiency of its operation
- ▶ The Agreement is an important tool to facilitate international trade and tourism, promote regional integration and enhance international cooperation
- ▶ It was adopted on 18 November 2003 by an intergovernmental meeting held in Bangkok, was open for signature in April 2004 in Shanghai and entered into force on 4 July 2005

President of Mongolia Khaltmaagiin Battulga

The Fourth Eastern Economic Forum on 12 September in Vladivostok, the Russian Federation on regional energy connectivity

- ▶ President called all countries in NEA to support to “establish an organization with appropriate involvement of six countries that share responsibilities to successfully implement the ‘North East Asian Super Grid’ project”
- ▶ The President set an expectation that this organization is to formulate a comprehensive policy by integrating all prior research works for the project and prepare relevant agreements and negotiations
- ▶ The President also proposed to launch a joint working group with involved parties promptly on the establishment of the organization



Political statements

- ▶ Chinese President Xi Jinping on establishing a Global Energy Interconnection mechanism in September 2015
- ▶ Russian President Vladimir Putin on the North-East Asia Super Energy Ring in September 2016
- ▶ President Moon Jae-in of the Republic of Korea, at the Eastern Economic Forum in September 2017, echoed the idea of power interconnections by proposing to begin discussions among all leaders in NEA to establish a super grid with a greater vision of forming a NEA economic bloc and a multilateral security system
- ▶ NEA power interconnection meets government policies such as Belt and Road Initiative (China), Gobitec Project (Mongolia), New Northern Policy (ROK) and New Eastern Policy (Russian Federation)

Way forward

▶ Required Actions:

- ▶ Change the political mindset from energy security based on independence to energy security based on interdependence
- ▶ Establish an effective institutional coordination mechanism through which the region moves from an ad hoc approach to a multilateral platform
- ▶ → A **Regional Roadmap for Energy Connectivity and institutional mechanism** could help to develop energy connectivity and to build trust
- ▶ Intergovernmental agreements for long term development

Conclusion

- Intergovernmental agreement that focuses on the interconnection of power grid and integration of sustainable generation will be needed in order to facilitate the acceleration of transboundary power trade
- The non-binding agreement aims at identifying principles to guide negotiations in setting up a legally-binding treaty will also need to address environmental and social aspects in promoting transboundary power



Session 3: Intergovernmental/multilateral arrangement for power interconnection

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