



Bureau of
Energy Resources,
United States
Department of State



National
Association of
Regulatory
Utility
Commissioners

LMI Workshop on Regulation and Regional Coordination Bangkok - Thailand

**Interconnections:
Opportunities for Regulatory
Harmonization
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Objectives of Regulation

- **Ensure that transmission and distribution tariffs are non-discriminatory and cost reflective;**
- **DSOs and TSOs maintain a secure, reliable and efficient electricity network; and**
- **Tariffs are sufficient to allow investments (ensuring the networks viability), and there is due regard to environment.**

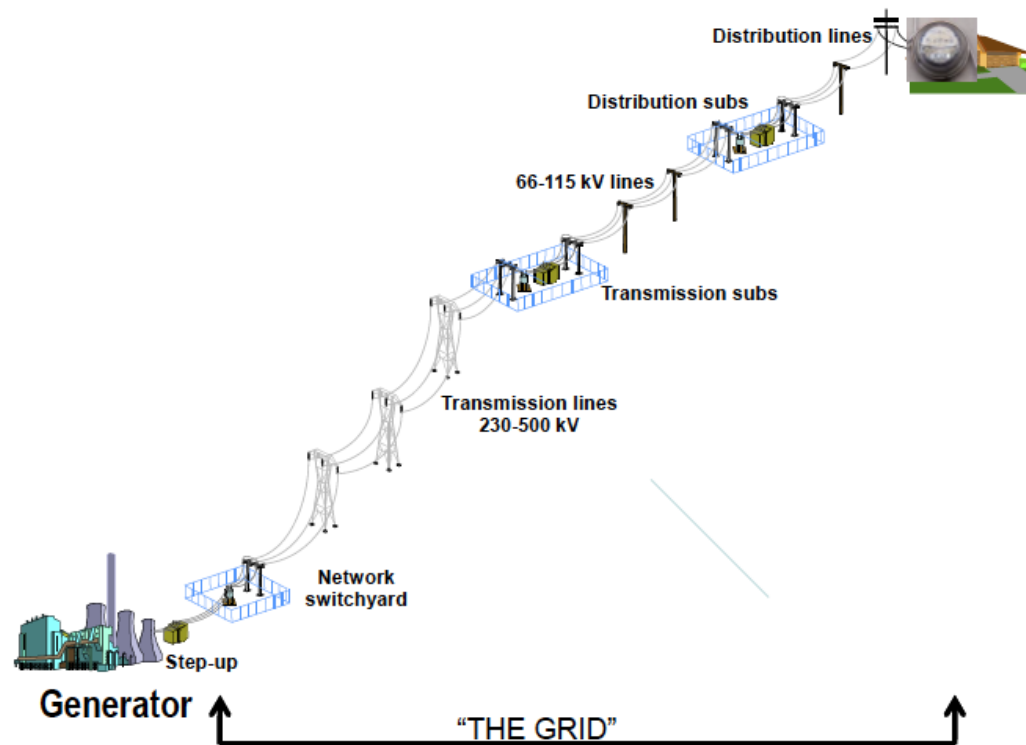


RAs Determine

- **Basis for the asset valuation of networks;**
- **Basis for establishing reasonable return for the capital invested;**
- **Accounts information and correction of income statements (separation of accounts etc.); and**
- **Target efficiency of the system operations.**



Electricity Grid



Source: Paul J. Joskow



Regional Energy Challenges

- **Aligning infrastructure expansion with energy demand and sustainable development objectives;**
- **Deploying a consultative approach towards energy markets integration; and**
- **Harmonizing legal and institutional frameworks that will promote LMS electricity market.**



Regulators Need 1

- **Enabling environment to build infrastructure and capacity for interconnections and strengthening of cross-border transmission networks;**
- **Collection and sharing of information and a robust database;**
- **Assurance that adequate energy supplies are available;**



Regulators Need 2

- **Cross-border cooperation;**
- **Fostering of sustainable development through greater efficiency and integration;**
- **Harmonization of monitoring and evaluation of regulatory practices;**



Regulators Need 3

- **Harmonization for energy trade through power pools, national and regional control centers and market coupling;**
- **Establishment of regional standards; and**
- **Sustained cooperation with all stakeholders and transparent rules (predictability).**



Regulatory Framework

- **It is necessary to build a converging and coherent regulatory framework; and**
- **The framework should be aligned at regional level and aim at both regional and national targets.**



Regional Expectations

- **Harmonization of the legal and regulatory framework (clear rules);**
- **Knowledge and institutional capacity building;**
- **Support to infrastructure development; and**
- **Support to sustainable energy policy.**



Actions for NRAs

- **Technical cooperation (studies, training and capacity building);**
- **Information collection, policy analysis and regional database (shared);**
- **Support to energy governance; and**
- **Regional association of regulators, which meets regularly.**

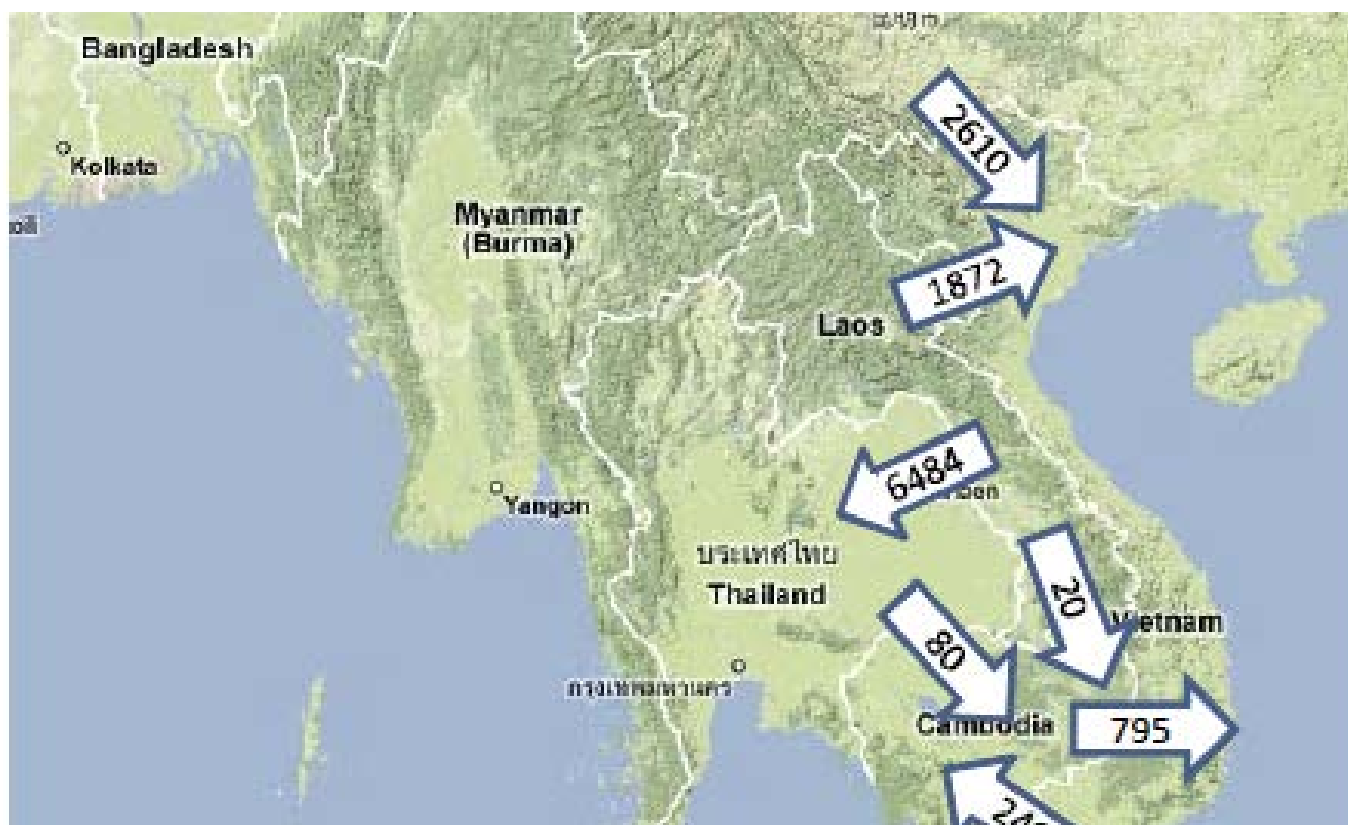


Interconnection

- **Progressive opening of markets to competition and harmonization;**
- **Unbundling and establishment of TSOs with transparent regulatory rules and incentives;**
- **Promoting RET, smart grids, smart meters and DSM; and**
- **Establishing national and regional goals.**



Possible Interconnections 2020





Conditions for Market Integration 1

- **Stable and transparent administrative procedures;**
- **Efficient and independent national regulatory authorities (NRAs);**
- **Transparency and third party access (TPA) to networks;**



Conditions for Market Integration 2

- **Alternate dispute resolution mechanism (ADR);**
- **Transparent tariffication; and**
- **Customer protection and empowerment.**



Strengthening of Transmission and Distribution Grids 1

- **Security of supply (SoS);**
- **Technical safety;**
- **Quality of service (QoS);**



Strengthening of Transmission and Distribution Grids 2

- **Better cost allocation and ROI for operators;**
- **Fair treatment of market actors and consumers;**
- **Consideration to energy poverty issues; and**
- **Appropriate principles for DSOs and TSOs.**



Evaluation of Regulation across Region

- Differences between regulatory model and the impact this will have on the industry; and
- The plans for future regulation and their status in terms of when they will be implemented or if they will be implemented at all.



Industry Structure 1

- **Many SOEs or government controlled companies;**
- **Differences in size;**
- **Differences in customer density;**



Industry Structure 2

- **Utilities mostly vertically integrated;**
- **Differences in network losses;**
- **Industry is heterogeneous; and**
- **Developing cross-border trade is complex and challenging task.**



Economic Regulation

- **Different approaches in different countries;**
- **Generally ex-ante regulation; and**
- **Balancing the interests of utilities and customers (maximize the sum of the customers and producer surplus).**



Conclusions 1

- **TSOs and DSOs have a different legal positions;**
- **Incentive regulation to promote investments in sustainable transmission and distribution infrastructure;**
- **Enabling regulatory environment (transparency, independence and predictability);**



Conclusions 2

- **Comprehensive information system and regulatory database; and**
- **Cooperation between NRAs and establishing a regional body.**



Thank you!

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