Chapter 5

Conclusions

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This research report analyses the costs and benefits of power grid interconnection in the NEA region, covering north and northeast of China, Japan, South Korea, Mongolia, and East Russia. Based on such analysis, the research team drew several important observations on the feasibility and optimal plans of power infrastructure development for power grid interconnection in the region. Policy implications were also drawn based on these observations. The research team strongly believes that these findings and policy implications are complementary to the existing literature on power grid interconnection in the NEA region.

For future research, the key question would focus on what policies and how such policies could more effectively promote and accelerate the development of power grid interconnection and renewable energy in the region. Specifically, the following issues should be considered:

(i) analyse the impacts of the development of pump storage, battery storage, and smart grid in the region;

(ii) analyse the impacts of ultra-high voltage power transmission technologies;

(iii) conduct case-by-case economic and financial analyses on the feasibility of selected power plants/farms and power transmission interconnections; and

(iv) discuss the possibility of interconnected and integrated electricity market in the region, especially on addressing the institutional and regulatory barriers.

The impact of clean coal technology should also be further studied, as it is almost sure that as the technology matures and costs get lower, it can potentially change the fuel mix of power generation in the region while contributing significantly to decreasing greenhouse gas emissions from the power sector.