
Energy Charter - IEEJ - JREF Joint Workshop

RES in JAPAN and electricity interconnection in Northeast Asia

20 November 2014, Tokyo, Japan



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Energy Charter Secretariat

Gobitec and Asian Super Grid for Renewable Energies in Northeast Asia



Outline

- Regional study Gobitec and Asian Super Grid (ASG)
- Energy Charter Treaty
- Recommendations for a long term vision
- Next steps to support Gobitec and Asian Super Grid

Gobitec and ASG for RES in Northeast Asia



Energy Charter Secretariat



Korean Energy Economics Institute



Energy Systems Institute of the Russian Federation



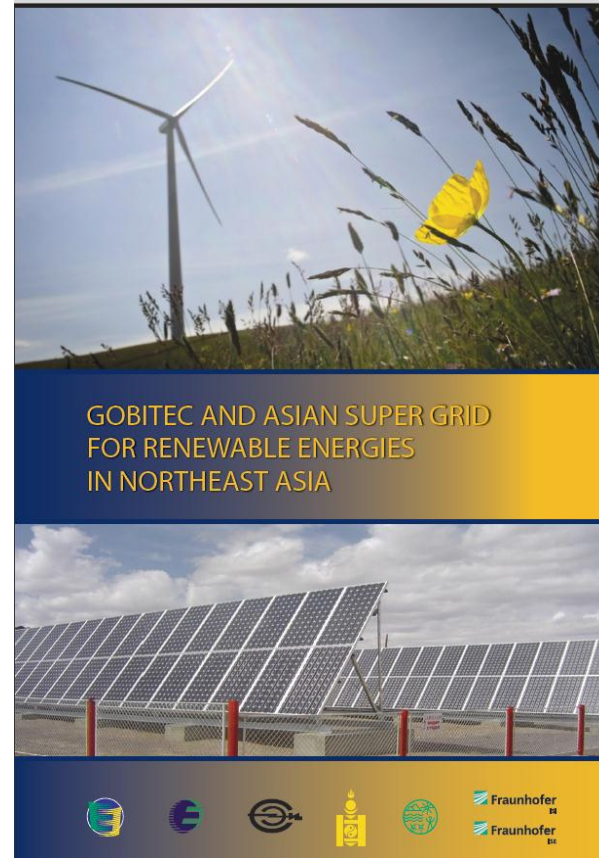
Ministry of Energy of Mongolia



Japan Renewable Energy Foundation

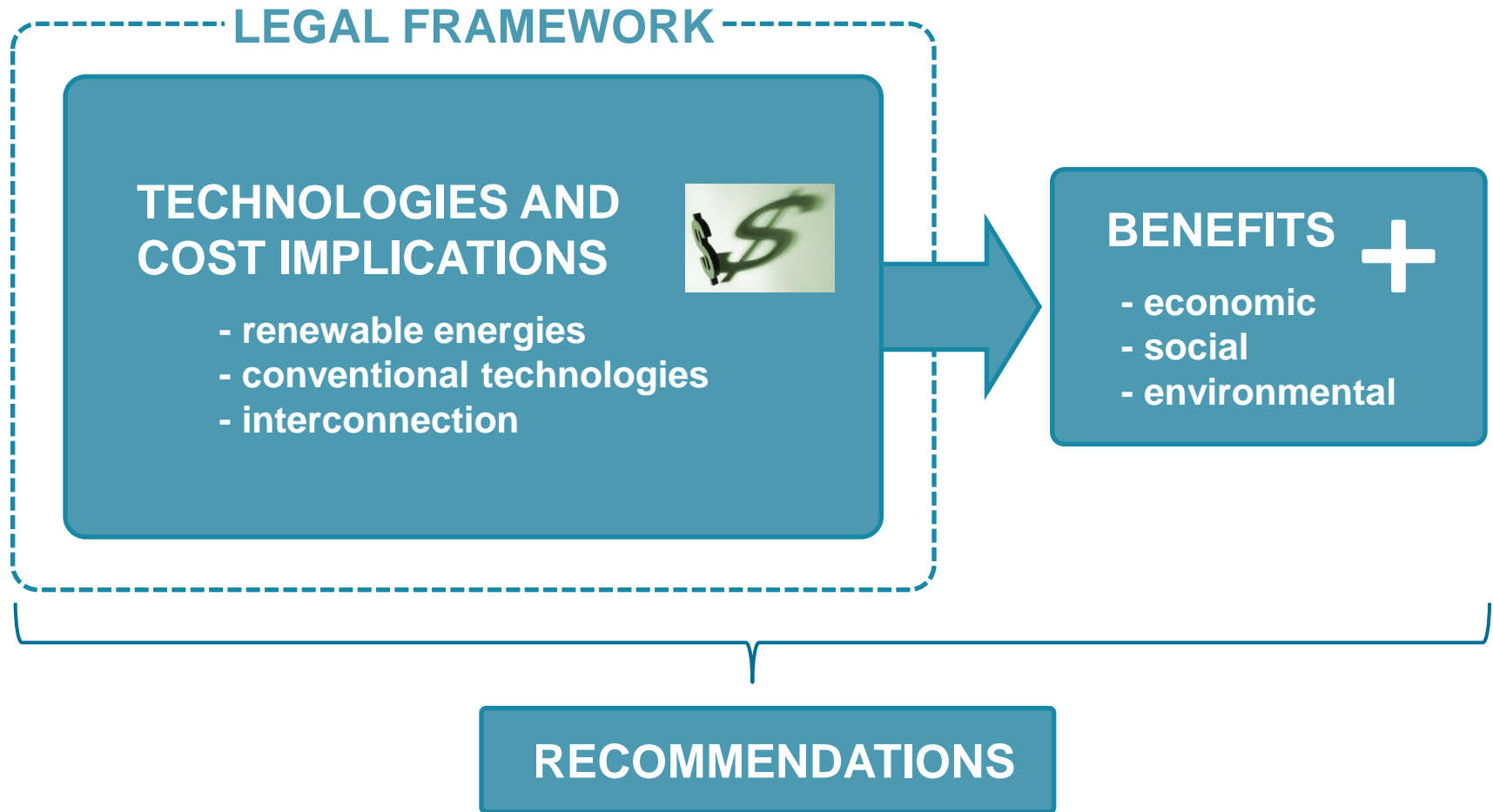


Fraunhofer ISI and Fraunhofer ISE

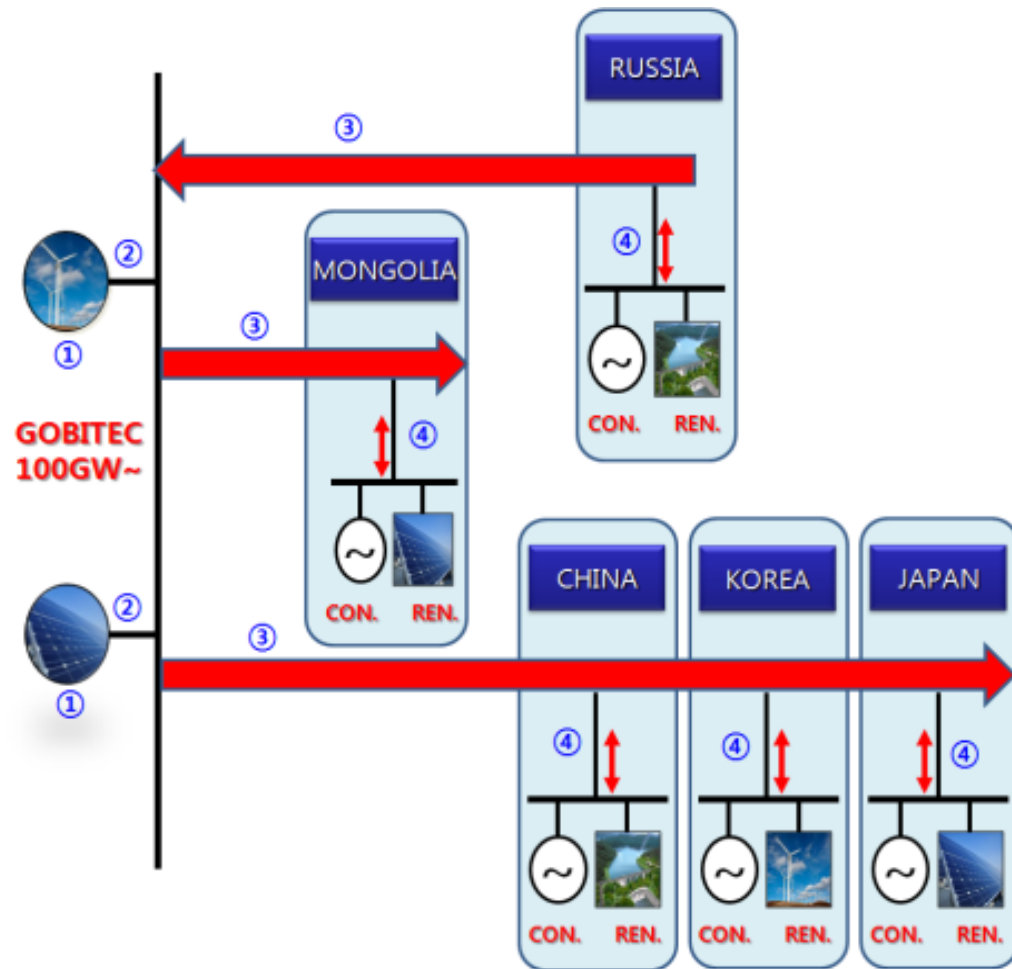


Available at www.encharter.org

Scope of the study

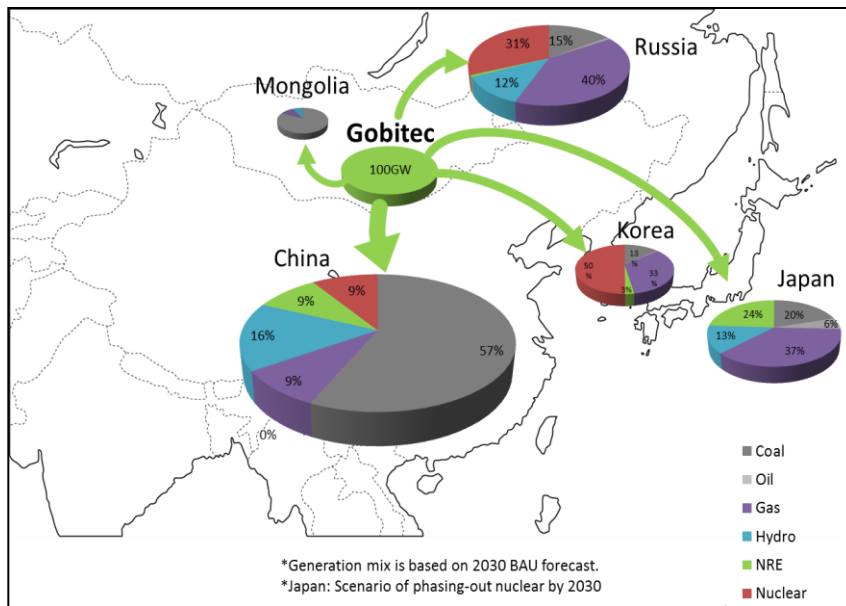


Gobitec - integrating solar, wind and hydro power

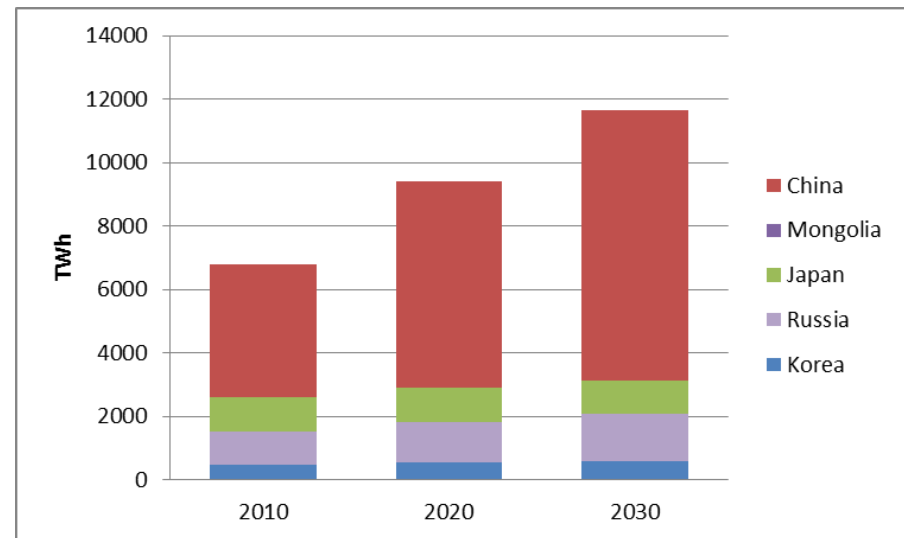


Gobitec potential – supply and demand

2030 mix and imports from Gobitec



NEA electricity demand (BAU forecast)



Export and transmission via Asian Super Grid (ASG)

100 GW RE capacity



Import: maximum
10% of
electricity
demand



Possible route of ASG



ASG as a result of many interconnections



Potential of the Energy Charter Treaty

Legal Certainty and Transparency

Intergovernmental common legal framework

Investments

Protection of foreign investments

Transmission

Rules to coordinate interconnected systems

Cross-border trade

Cross-border trade to integrate power markets



The ECT, a political and legal guarantee for large scale projects

Key messages

Interconnection

strategic countries in Northeast Asia.

Technologies

HVDC transmission. Wind and solar

ECT

investment, trade & transit

Benefits

economic, social & environmental

RES potential

solar and wind in the Gobi

RES integration

technologies to balance the system

Objectives

sustainability and energy security.

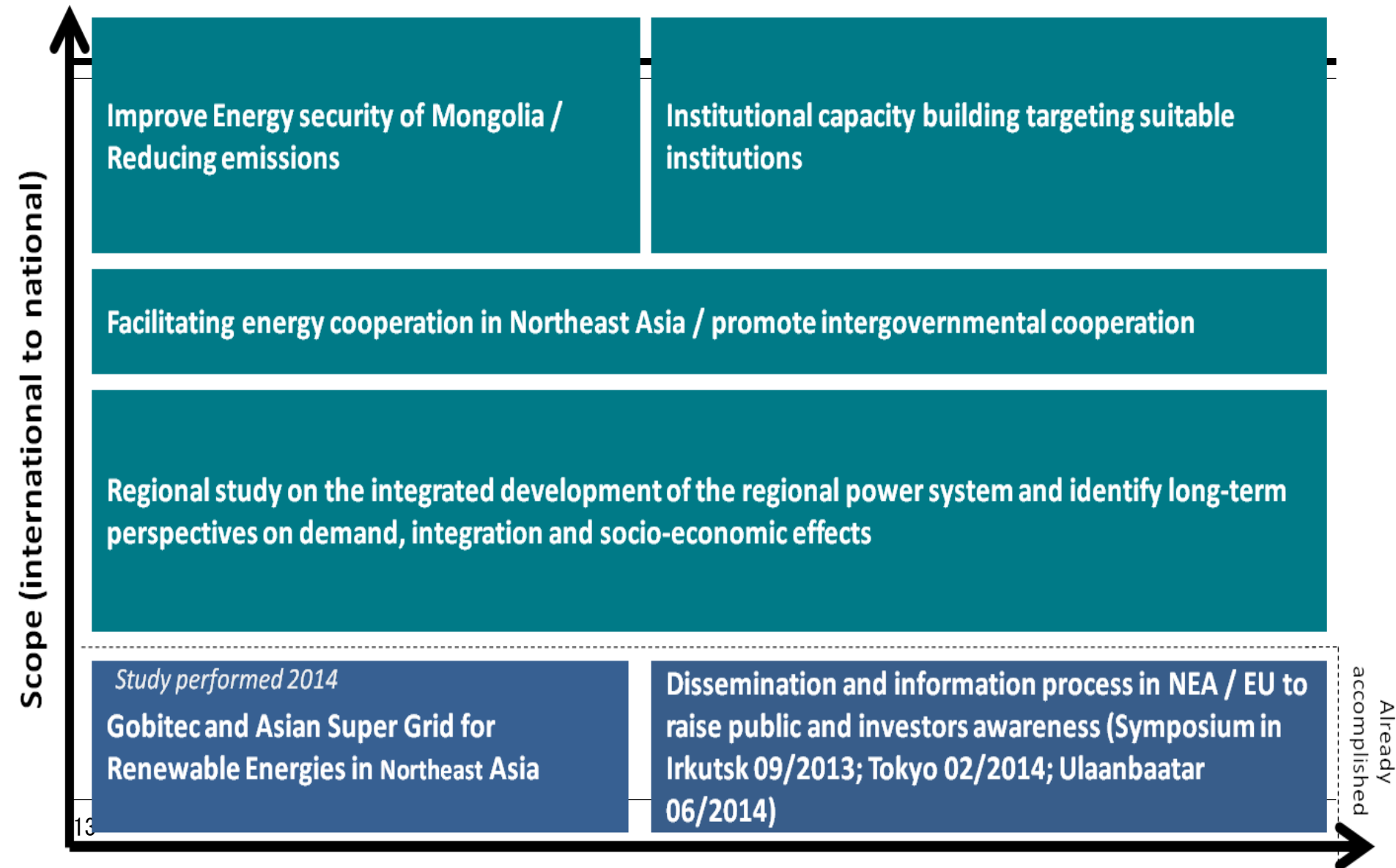
Regional cooperation

to establish Gobitec & ASG.

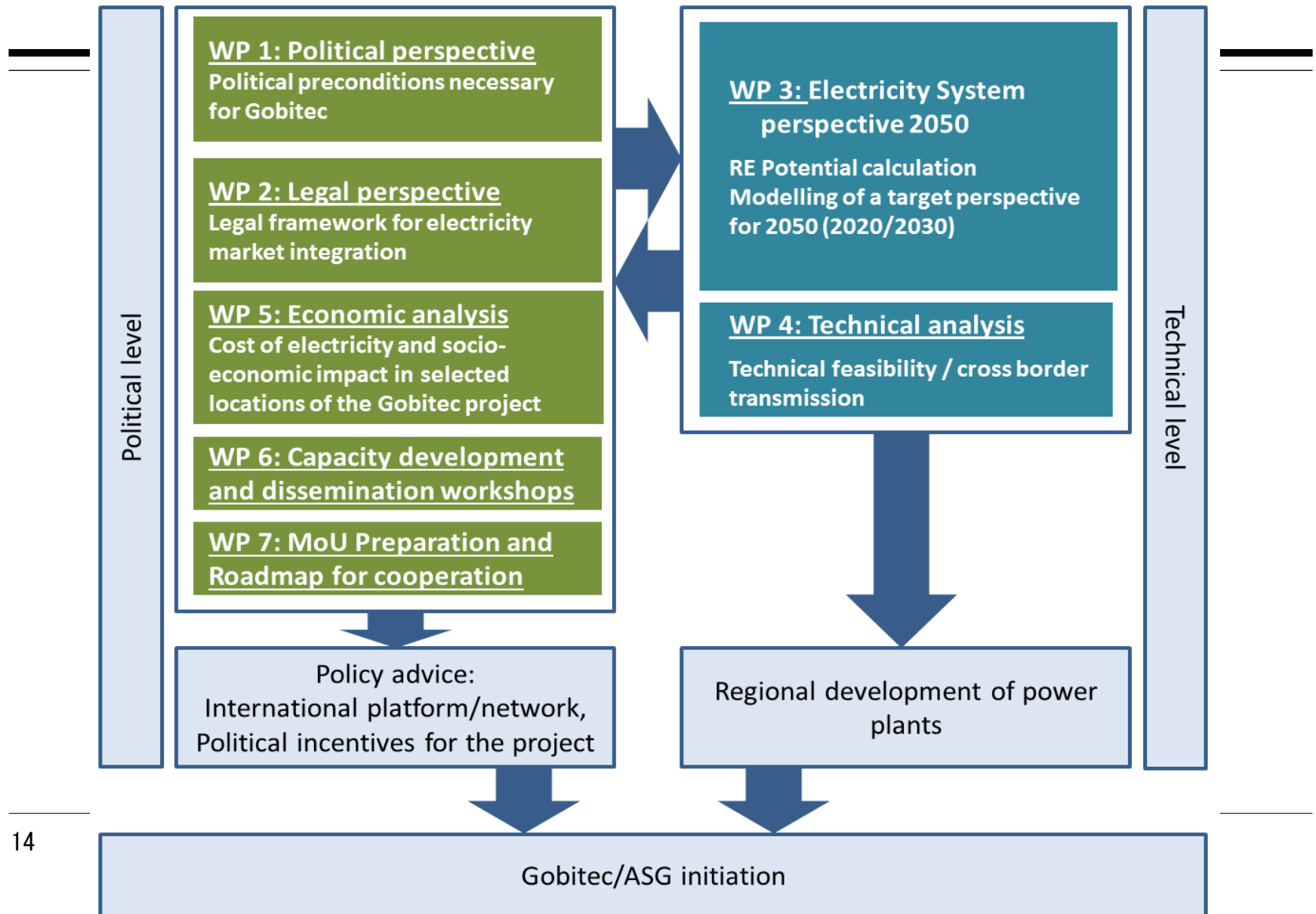
SWOT Analysis

Strengths <ul style="list-style-type: none">- Huge RES potential in Gobi, South Korea and Japan	Weaknesses <ul style="list-style-type: none">- Absence of common legal framework- Huge capital costs
Opportunities <ul style="list-style-type: none">- Improve energy security- Cut down CO₂ emissions	Threats <ul style="list-style-type: none">- Lack of political cooperation

Next steps





Future activities




Ulaanbaatar Energy Charter Forum

26 June 2014



Ministry of Energy of Mongolia




Energy Charter Secretariat

Ulaanbaatar Energy Charter Forum:
Developing Renewable Energy
across Gobitec and Asian Super Grid in Northeast Asia

Mongolia, 26 June 2014
Forum Report

The Ulaanbaatar Energy Charter Forum addressed important regional initiatives on developing renewable energy across Gobitec and Asian Super Grid. The Energy Charter Secretariat and the Ministry of Energy of Mongolia brought together more than 150 representatives of the governments, business sector and international organisations to debate the current status of developments and discuss how to move forward to support Mongolia and interested countries in the region of Northeast Asia that wish to develop more renewable energies sources (RES) and improve electricity interconnections in the region.

President of Mongolia Elbedorj Tsakhiya stated, in his opening remarks, that Mongolia has huge potential of solar and wind and strategic location, which implies that Gobi desert will become an energy hub in the region, producing a quarter of its energy from renewable sources and potentially exporting electricity generated by wind and solar. He stressed that further progress requires active engagement and cooperation of the countries in Northeast Asia.



Opening of the Forum

Gobitec and the Asian Supergrid are ideas to use the vast renewable energy potential of wind and solar energy of the Gobi desert on the one hand and on the other hand to connect North East Asia with a transmission line allowing exchanging electricity between the participating countries.



Publication is available at
www.encharter.org

The Energy Charter: a bridge between regions

Lessons learned from EU experience

- National hesitations to agree and apply common rules
- National reluctance to cross-border electricity trade
- Challenges concerning investment protection
- The importance of pragmatic solutions

Thank you very much for your attention



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