Webinar Series:
Entry Point on Enhancing Power Grid Connectivity To Achieve Affordable And Clean Energy For All

Entry points for accelerating the implementation of the 2030 Agenda for Sustainable Development in Asia and the Pacific

08 April 2020
Parallel Online Consultation for Entry Points:

Entry point 1 – Human well-being and capabilities  
Entry point 2 – Sustainable and just economies  
Entry point 3 – Food systems and nutrition patterns  
Entry point 4 – Enhancing Power Grid Connectivity to Achieve Affordable Clean Energy for All  
Entry point 5 – Urban and peri-urban development  
Entry point 6 – Global environmental commons
Entry Point 4: ENHANCING POWER GRID CONNECTIVITY TO ACHIEVE AFFORDABLE CLEAN ENERGY FOR ALL

Lead Agency

In collaboration with:
Entry Point 4: ENHANCING POWER GRID CONNECTIVITY TO ACHIEVE AFFORDABLE CLEAN ENERGY FOR ALL
I. ENHANCING POWER GRID CONNECTIVITY TO ACHIEVE AFFORDABLE CLEAN ENERGY FOR ALL

“The international community should... reduce the risk of fragmentation by encouraging cross-border, cross-sector and cross-vector strategic partnerships to accelerate progress along net-zero carbon pathways, and to secure new opportunities for global trade in clean electrons and clean molecules (gas and liquids), including hydrogen”.

(World Energy Council, 2019)
1. ENHANCING POWER GRID CONNECTIVITY TO ACHIEVE AFFORDABLE CLEAN ENERGY FOR ALL

- The potential for interconnection to help accelerate uptake of renewables is not yet fully appreciated.
- Connectivity can facilitate renewable energy growth by linking remote renewable energy resources with demand centres, improving economies of scale, and enabling higher renewables penetration.

UN General Assembly Resolution 74/225 called for strengthened cooperation to promote innovation, facilitate financing and share best practice approaches to support appropriate regional cross-border power grid connectivity.
II. BENEFITS AND OPPORTUNITIES

Benefits and opportunities of electricity connectivity

- Increasing load factor of power plants and networks
- Reducing the impact of plant downtime
- Sharing ancillary services
- Addressing shortages
- Reducing the import dependency
- Reducing the impact of resource constraint
- Reduce vulnerability to force majeure
- Reinforcing system stability
- Improving economies of scale for new renewable energy supplies
- Support development of renewable energy
- Increasing the share of renewable energy
- Optimising the energy mix

- Revenue generation
- Optimising the use of regional resources
- Supporting an emerging international energy (electricity) market
- Enabling least cost dispatch

- Economic and financial
- Technical and operational
- Social
- Environmental
- Security

Price stabilization
Addressing shortages and enhancing access
Enhancing energy access
III. CHALLENGES AND BARRIERS

Policy alignment
Technical standards
Harmonization of regulations
Transmission planning
Institutional frameworks
Creation of integrated markets

Finance and commerce
Policy and regulation
Project development
Technical and operational
Politics

Challenges and barriers to electricity connectivity

Trust
Relationships
Energy security
Political uncertainty
Consensus
Data
Technical standards
Dispute resolution
Grid codes
IV. EXISTING AND PLANNED SUB-REGIONAL INITIATIVES

• North-East Asian Supergrid

• SAARC Energy Ring

• ASEAN Power Grid

• Emerging initiatives (e.g. Australia – Indonesia renewable energy links)
V. ROUNDTABLE POLICY RECOMMENDATIONS FOR ACCELERATION

• Policy Recommendation 1.
  Strengthen political commitment for enhancing power grid connectivity.

• Policy Recommendation 2.
  Strengthen regional cooperation on power transmission policy, planning and operations.

• Policy Recommendation 3.
  Ensure that adequate finance, trade and innovation agreements are in place.

• Policy Recommendation 4.
  Build capacity in relevant technical and policy domains and share learnings from successes.

• Policy Recommendation 5
  Post-pandemic stimulus funding towards sustainable energy infrastructure.
Thank You