



USAID
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REGIONAL POWER TRADE AND MARKETS

Facilitating regional energy cooperation
and development of an interconnected
South Asian power grid



Consensus Building



Regulatory
Harmonization



Regional Institution
Strengthening



Power Market



Trading Institution



Trilateral Trade

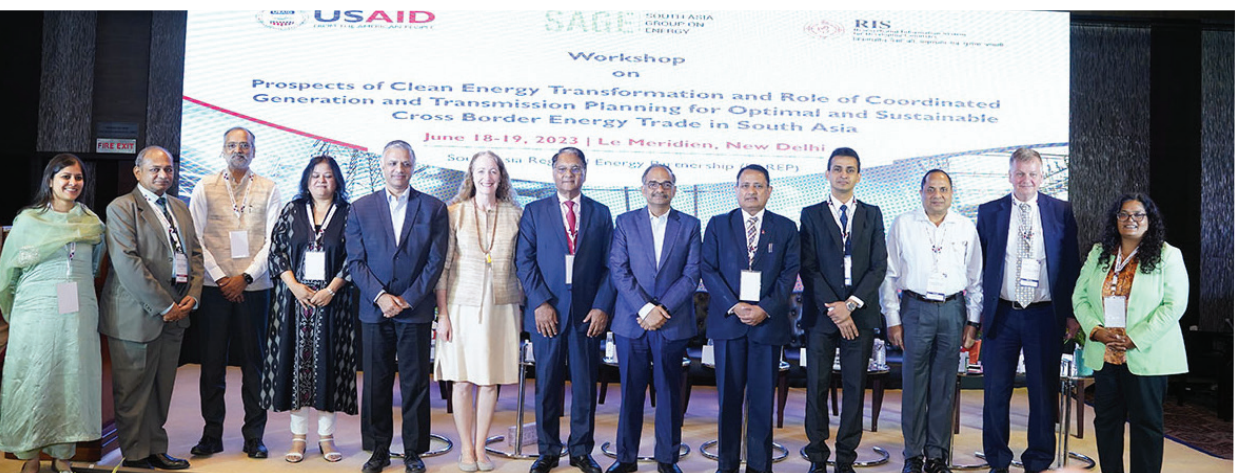
Context



Rt. Hon'ble Pushpa Kamal Dahal, Prime Minister of Nepal launches USAID's 'Strategy Paper for Creation of South Asia Forum for Energy Investments for Promoting Regional Energy Investment'

The countries in the South Asian (SA) region have the fastest growing economy but it is also amongst the least economically integrated regions in the world. The growing economy translates to growing demand for energy in the region. The SA countries are also endowed with huge clean energy resources including 350 Gigawatt (GW) hydropower potential, >1000 GW of solar and more than 1289 GW of wind potential. All these energy resources are diversely located in the region. There are tremendous complementarity in energy resource base, power demand, time and seasonal diversity among SA countries which can be tapped to satisfy the ever growing energy needs of the region.

Regional energy cooperation, especially Cross Border Electricity Trade (CBET), will support optimum utilization of clean energy resources, lowering the cost of power and reducing the carbon footprint of the region. Recognizing these opportunities, the governments of SA countries are intensifying regional power trade which has resulted in around 18.1 Terawatt hours (TWh) of CBET in FY2023, a three time increase since FY 2010. The countries in the region are also making efforts to create a vibrant and competitive regional electricity market .



SAGE-RIS & USAID SAREP workshop on 'Prospects of Clean Energy Transformation and Role of Coordinated Generation and Transmission Planning for Optimal and Sustainable Cross Border Energy Trade in South Asia'

Regional Energy Integration – A Consultative Approach



for Accelerating Regional Energy Integration
Provides Strategic Guidance and Support for accelerating CBET



Task Force-1 on “Coordination of Policies, Legal and Regulatory Frameworks for Cross Border Electricity Trade”

Harmonization of policy, legal and regulatory issues to create an enabling systemic conditions for a sustainable market for implementation and expansion of CBET projects.

Knowledge studies on -

- Long term regional cross border energy policy & regulatory vision
- Regional dispute settlement mechanism for CBET
- Regulatory framework for regional electricity monitoring and oversight



Task Force-2 on “Enhancement of Transmission System Interconnections for Cross Border Electricity Trade”

Advance Transmission Systems Interconnection and facilitate implementation of bilateral, trilateral and regional transmission interconnections for development of South Asian Regional Power Grid.

Knowledge studies on -

- Regional electricity supply and demand scenario and CBET potential by 2043
- Pre-feasibility analysis of cross border electricity transmission.
- South Asia regional generation and transmission master plan



Task Force-3 on South Asia Regional Power Market for market based Electricity Trade”

Create an enabling environment for the creation of a South Asia regional power market to accelerate market-based CBET transactions.

Knowledge studies on -

- Learnings on undertaking Electricity Market Reforms
- Regional electricity market design vision
- South Asia regional power exchange

Key Interventions



Consensus Building



Institutionalization of South Asia Regional Parliamentary Forum on regional energy cooperation
South Asia Think Tank Forum (TTF) enhancing CBET and regional energy cooperation



Enabling Framework and Mobilizing Investments



Establishing regional investment facilitation platform - South Asia Forum for Energy Investments (SAFEI)



Enhancing regional energy data ecosystem analytics through South Asia Energy Database (SAED)



Strategic advocacy for trilateral power trade (Nepal/Bhutan-India-Bangladesh)



Institutionalization of the South Asia Network for Integrated Power System Planning and Operation (SANIPO)



Facilitating Power Exchange Participation



Enhancing power market-based CBET for Bhutan and Nepal through power trading tools



Preparing Bangladesh to participate in the regional power exchange



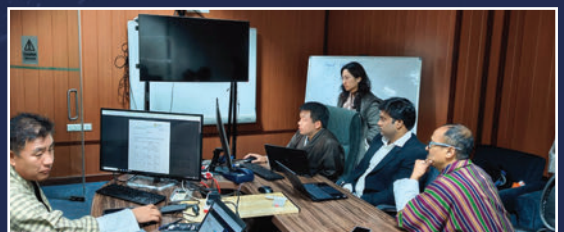
Integrated power exchange Transaction Model for Dispatch, Scheduling & Bidding (IMDSB)



River Inflow Forecasting and Measurement System for Chhukha Hydropower Plant



Sophisticated web-based Power Exchange Transactions software tool





Institutional Strengthening of Regional Institutions



Knowledge support to SAFIR for regulatory cooperation

- Regulatory pathway for electricity/energy exchange
- Framework for regional ancillary service market
- Regulatory newsletter and compendium
- Regional regulatory dialogue and annual conference



Institutional support to BIMSTEC Energy Centre on

- Regional Energy Database
- Energy Perspective 2040
- Regional energy cooperation
- Website, newsletter, knowledge resource library, joint workshops



Enabling power trading entities in South Asian region



Market assessment for Nepal power trading entities



Stakeholder consultations with regional beneficiaries along with consensus building



Capacity Building and Knowledge Sharing



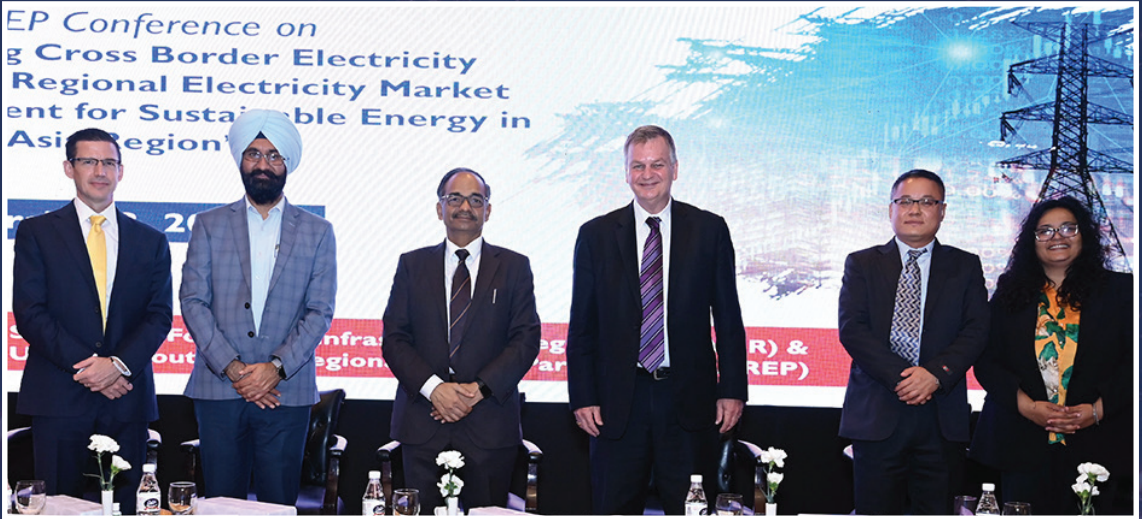
Peer exchange and training programs conducted for power trade and markets for stakeholders from Bhutan and Bangladesh



Technical trainings and knowledge sharing workshops on power trade, markets (day ahead, real time market), DSM, etc.



Key Achievements



SAFIR-SAREP Conference on 'Deepening Cross Border Electricity Trade and Regional Electricity Market Development for Sustainable Energy in the South Asia Region'



Consultations on South Asia Regional Parliamentary Forum

The role of parliamentarians is critical in advancing regional energy cooperation, energy markets and cross border energy trade in South Asia. USAID/India in partnership with Climate Parliament is institutionalizing a Regional Parliamentary Forum of South Asian parliamentarians to engage them on these issues in a sustainable manner. In this context, USAID/India in partnership with Climate Parliament organized a day long South Asian Parliamentarian's Roundtable on Regional Energy Cooperation (REC) with participation of BBIN parliamentarians on November 8, 2022 at Sharm El-Sheikh, Egypt on the side-lines of COP27 to announce the Regional Parliamentary Forum. National level consultations followed in Bangladesh on the forum with regional workshop and meetings with prominent Member of Parliamentarians including the Honorable Speaker of Bangladesh.



South Asian Parliamentarians in the workshop on the sidelines of COP27 at Sharm-el-Sheikh, Egypt

Release of Strategy Paper for Creation of South Asia Forum on Energy Investment (SAFEI)

USAID's 'Strategy Paper for Creation of South Asia Forum on Energy Investment (SAFEI) for Promoting Regional Energy Investment' was launched by Sh. Pushpa Kamal Dahal, Rt. Hon'ble Prime Minister of Nepal, in Kathmandu on April 18 at the inaugural session of Power Summit, 2023. The vision of SAFEI is to become the regional center of excellence for creating an investor friendly ecosystem for the development of sustainable regional energy projects and advancing cross border energy trade in South Asia. The forum will facilitate, support and promote regional energy investments in SA in a sustainable and cost-effective manner.



Strategy Paper on South Asia Forum for Energy Investments released at Power Summit in Nepal

Partners

- Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) Energy Centre
- South Asia Forum for Infrastructure Regulators (SAFIR)
- Bangladesh - Ministry of Power, Energy and Mineral Resources
- Bangladesh Power Development Board (BPDB)
- Power Cell Bangladesh
- Bangladesh Energy Regulatory Commission (BERC)
- Bhutan – Department of Energy (DoE)
- Bhutan Power System Operator (BPSO)
- Druk Green Power Corporation Limited (DGPC)
- Electricity Regulatory Authority (ERA), Bhutan
- National Center for Hydrology and Meteorology (NCHM)
- Ministry of Water, Energy Resources and Irrigation, Nepal
- Nepal Electricity Authority (NEA)
- Electricity Regulatory Commission, Nepal
- Independent Power Producer Association of Nepal (IPPAN)
- India - Ministry of Power (MOP)
- Central Electricity Regulatory Commission (CERC)
- Grid Controller of India limited (GRID-INDIA)
- Central Electricity Authority (CEA), India
- Central Transmission Utility (CTU), India
- Power Grid Corporation of India Ltd (PGCIL), India
- Indian Energy Exchange Limited (IEX), India
- South Asia Group on Energy (SAGE) at Research and Information System for Developing Countries (RIS)
- Sri Lanka - Ministry of Power and Energy
- Public Utility Commission of Sri Lanka (PUCSL)
- Ceylon Electricity Board (CEB)

About SAREP

The South Asia Regional Energy Partnership (SAREP), a flagship program to advance objectives of the U.S. Government's Clean Asia Enhancing Development and Growth through Energy (Clean EDGE), is a five-year initiative (2021-26) that aims to improve access to affordable, secure, reliable, and sustainable energy across six South Asian countries—Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka—in line with these countries' climate and clean energy priorities.



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