



South Asia Regional Initiative for Energy Integration

Quarterly Update – July to September 2017

ACCOMPLISHMENTS FOR THE QUARTER

STAKEHOLDER CONSULTATION WORKSHOP ON DEVELOPING FRAMEWORK AND GUIDELINES FOR NON-DISCRIMINATORY OPEN ACCESS IN TRANSMISSION FOR CROSS-BORDER ELECTRICITY TRADE (CBET) AND DEVELOPING MODEL FRAMEWORK FOR TRADING LICENSE REGIME TO FACILITATE CBET KATHMANDU, NEPAL

Open access in transmission and trading license regime are important ingredients to facilitate power trade and development of a power market in South Asia. SARI/EI organized a stakeholder consultation workshop in Kathmandu, Nepal on July 18, 2017 focused on (a) developing a framework and guidelines for a non-discriminatory open access regime in transmission for cross-border electricity trade in the South Asian countries (SACs) and (b) developing a model framework for a trading license regime to facilitate CBET in the SACs. A presentation was made on the key findings of the study on open access and trading license to the Nepal stakeholders to obtain their input and suggestions. Over 30 stakeholders from Nepal, including officials from the Ministry of Energy, Nepal Electricity Authority and USAID/Nepal participated in the workshop.



Stakeholder consultation workshop on open access and trading license in Kathmandu, Nepal

6TH TASK FORCE-1 MEETING ON COORDINATION OF POLICY, REGULATORY AND LEGAL FRAMEWORK POKHARA, NEPAL

The 6th Task Force-1 Meeting on Coordination of Policy, Regulatory and Legal Framework was held in Pokhara, Nepal on July 19 – 20, 2017. Task Force members from South Asian countries along with representatives from SARI/EI/IRADe and USAID attended the meeting. TF-3 country members presented the latest developments and updates on the policies, regulations, laws, and frameworks relating to domestic and cross-border electricity trade. The key findings of the SARI/EI studies were presented and deliberated among the members. These included a) Regional Investment Framework and Policy Guidelines for Promoting Investment in the South Asia Power Sector; b) Framework and Guidelines for Non-discriminatory Open Access Regime in Transmission; and c) Model Framework for Trading License Regime to Initiate/Advance Power Trading in South Asia Countries and Facilitate CBET in the South Asia Region. Comments and suggestions provided by the members will be incorporated and the reports will be finalized.



6th Task Force-1 meeting in Phokara, Nepal

BHUTAN HYDROPOWER PROJECT PLANNING TRAINING THIMPHU, BHUTAN

USEA contracted GE Power India Limited (GEPIL) to provide two modules of training in hydropower project planning to support Bhutan's plans for expanded large hydropower generation. The training was conducted on July 31 – August 4, 2017 and September 4 – 8, 2017 for the Bhutanese Ministry of Economic Affairs (MEA), Department of Hydropower and Power Systems (DHPS), the Department of Renewable Energy, Bhutan Electricity Authority, Druk Green Power Corporation, Bhutan Power Corporation, and Punatsangchhu Hydroelectric Project Authority. A total of 42 executives participated in the training that focused on:

- Project site identification
- Layout alternative studies
- Hydrological analysis
- Power potential & optimization studies
- Geological mapping
- Geotechnical appraisal including geophysical studies

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- Civil design and construction methodologies for hydropower projects
- Overall transmission system planning and optimization in transmission planning in terms of integration, and cost optimization
- Cost estimations
- Financial & economic assessment
- Economic assessment of technology options for increasing transmission capacity
- Environmental impact assessments of hydro projects
- Hydropower project construction methodology
- Load forecasting methods
- Project scheduling
- Project Risk management

The training provided participants with a deeper understanding of hydropower project implementation. Participants benefited from lessons on load forecasting and biodiversity management in new projects. They discussed optimizing the cost of transmission lines, the role of the public as a stakeholder in hydropower projects, and land acquisition for new hydropower projects. Participants were particularly interested in addressing the process involved in pre-construction of a new hydropower project; including conducting a detailed topographical survey and geotechnical investigation; acquisition of privately-owned land; and receiving clearance from government agencies such as the Pollution Control Board, the Irrigation and Forest Department, and the Public Health Department. Awarding contracts and obtaining licenses from these various government agencies was discussed at length by a number of engineers attending the second module, as they were in the process of pre-construction planning. The government of Bhutan places a high priority on environmental conservation. Hence, participants also focused on conducting environmental impact assessments, including how to determine the demographic and socio-economic characteristics of a potential site for a hydropower project through field surveys. Upon the close of the second module, participants highlighted their plan to implement the various types of load forecasting and the regulations for each into their work, as well as planning shut-downs and regular maintenance during the lean period.



Delegates gathered in Thimphu, Bhutan for Module 2 to discuss cost estimations and financial & economic assessment.

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TRAINERS:

- Mr. Fabio Salomao, Knowledge Management Leader, GE
- Mr. Gabriel Ciocan, Hydro Project Director, GE
- Mr. Umesh Hegde, Independent Consulting Engineering Geologist
- Mr. Vinod Abbey, Managing Director, Power Consulting Engineers Private Ltd.
- Mr. C.D. Prahlad, Director, Power Consulting Engineers Private Ltd.
- Mr. Romil Kumar, Chief Engineer and Guest Professor, Power Consulting Engineers Private Ltd. and NPTI Faridabad

PARTICIPANTS:

Department of Hydropower & Power Systems

- Mr. Karma Namgyel, Officiating Chief Engineer
- Mr. Denkar, Deputy Executive Electrical Engineer
- Mr. Ugyen Chopel, Electrical Engineer
- Mr. Kinley Jamtsho, Electrical Engineer
- Ms. Tshering Yangki, Deputy Executive Electrical Engineer
- Ms. Sangay Zangmo, Assistant Electrical Engineer -3
- Mr. Sonam Gyeltshen, Electrical Engineer
- Mr. Passang, Executive Electrical Engineer
- Mr. Karma Yezer, Geologist
- Mr. Tshering Tashi, Electrical Engineer
- Mr. Sagar Ghimirey, Deputy Executive Civil Engineer
- Mr. Sonam Dorji, Civil Engineer
- Mr. Sonam, Electrical Engineer
- Ms. Wangmo, Assistant Civil Engineer – 1
- Ms. Dechen Wangmo, Assistant Civil Engineer – 1
- Mr. Ugyen Thinley, Junior Electrical Engineer
- Mr. Tshering Chopel, Junior Civil Engineer
- Mr. Jamyang Namgyel, Deputy Executive Electrical Engineer

Department of Renewable Energy

- Mr. Pema Tshewang, Electrical Engineer
- Mr. Ugyen, Executive Electrical Engineer

Bhutan Electricity Authority

- Mr. Rinchu Dorji, Deputy Civil Engineer
- Mr. Tandin Norbu, Deputy Executive Civil Engineer
- Mr. Nima Tshering, Chief Engineer
- Ms. Deki Choden, Chief Electrical Engineer

Druk Green Power Corporation Ltd.

- Mr. Karchung K. Dorji, Deputy Executive Civil Engineer
- Ms. Tshering Yangzom, Deputy Executive Civil Engineer
- Mr. Chencho Wangdi, Geo-Technical Engineer

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- Mr. Lachu Man Dhungyel, Deputy Executive Civil Engineer
- Ms. Passang Wangmo, Deputy Civil Electrical Engineer
- Mr. Kinga Gyeltshen, Deputy Executive Electrical Engineer
- Mr. Tshering Tashi, Deputy Executive Electrical Engineer
- Ms. Deki Om, Environmental Engineer

Bhutan Power Corporation Ltd.

- Ms. Tashi Choden, Senior Electrical Engineer
- Mr. Jangchuk, Electrical Engineer

Punatsangchhu Hydroelectric Project Authority – 1 & 2

- Mr. Kezang Tenzin, Assistant Executive Mechanical Engineer
- Ms. Tshering Yangchen, Assistant Executive Civil Engineer
- Ms. Karma Zangmo, Assistant Executive Civil Engineer
- Mr. Cheni Dorji, Superintending Electrical Engineer
- Mr. Pema Tenzin, Executive Electrical Engineer
- Mr. Namkha Gyeltshen, Assistant Executive Electrical Engineer
- Mr. Gorab Dorji, Superintending Civil Electrical Engineer
- Mr. Rinzin Gyeltshen, Superintending Mechanical Engineer



GE Knowledge Management Leader Fabio Sá presents on hydropower project implementation, during module 1.

STAKEHOLDER CONSULTATION WORKSHOP ON SOUTH ASIAN REGIONAL POWER EXCHANGE (SARPEX) MOCK EXERCISE & ONE-TO-ONE MEETINGS DHAKA, BANGLADESH

SARI/EI organized a workshop on SARPEX Mock Exercise in Dhaka, Bangladesh on August 9 – 10, 2017. The workshop covered various aspects of SARPEX, such as its objectives, mode of operations, and power exchange operation, and provided participants with an opportunity to get familiar with SARPEX mock exercise.

Chief Guest Mr. Mohammad Hossain, Director General, Power Cell, Power Division, Ministry of Power, Energy and Mineral Resources, Bangladesh delivered the keynote address. The workshop was attended by Mr. Sher Khan, USAID SARI/EI Country Coordinator for Bangladesh and Mr. Mizanur Rahman, Member, Bangladesh Electricity Regulatory Commission along with participants from around 30 organizations. The participants provided their feedback on the feasibility of having a regional power exchange and the model exercise undertaken. One-to-one meetings were also conducted with the Ministry of Mineral and Energy Resource, Bangladesh Electricity Regulatory Commission, Bangladesh Power Development Board, and Dhaka Power Distribution Company on August 10, 2017.



SARPEX stakeholder consultation workshop in Dhaka, Bangladesh

NEPAL HYDROPOWER PROJECT DEVELOPMENT EXECUTIVE EXCHANGE VIETNAM

USEA conducted a five day executive exchange to Vietnam during August 28 – September 1, 2017 for Nepal members of parliament residing in provinces with planned large hydro facilities, and executives from the Investment Board Nepal, which is the lead organization for large hydropower development. Delegates learned about Vietnam's experience in the planning, appraisal, financing, development, risk mitigation, structuring, and operations involved in large hydropower production.

The delegation met with Electricity Vietnam (EVN) – the vertically integrated utility responsible for the majority of electricity generation, transmission and distribution in the country. EVN shared their experiences in hydropower development, including key stakeholders' roles, project classification, financing of hydropower projects by multilateral agencies in Vietnam, power trade agreement (PTA), power purchase agreement (PPA), transmission and other cross-border transmission.

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Left: The delegation at Trung Sơn hydropower project. Right: The delegation at the Thanh Sơn Hydropower .

The delegation visited two hydropower sites during their visit. The first was to the recently completed Trung Sơn hydropower project, owned by the Trung Sơn Hydropower Company Limited (TSHPCo) (under EVN) and largely financed by the World Bank. The powerhouse has four generating units with a total capacity of 260 MW and an annual output of 1,018.61 GWh – a significant addition to the national grid. In addition to learning about the project's planning and finance, the delegates were exposed to the details of the resettlement and risk, social and environmental impact mitigation. Thanh Sơn Hydropower was the second site the delegation visited. Thanh Sơn is under construction by a private developer, with a planned capacity of 30 MW. The delegation briefly visited the site to learn the salient features of the plant and view the construction efforts.

The program was conducted with assistance from USAID's Nepal Hydropower Development Project (NHDP). Deloitte Consulting, USAID's NHDP implementing partner, provided presentations to the delegation. The first was focused on regulation – the role and function of the regulator, steps for establishing regulatory framework, and international case studies of electricity regulator.

On the final day the World Bank provided their perspective on the Vietnam power sector including hydro power, World Bank's parameters to support Vietnam power sector on soft support (TA, capacity building etc.) and asset financing. They also shared success stories and learnings from hydropower development in the region.

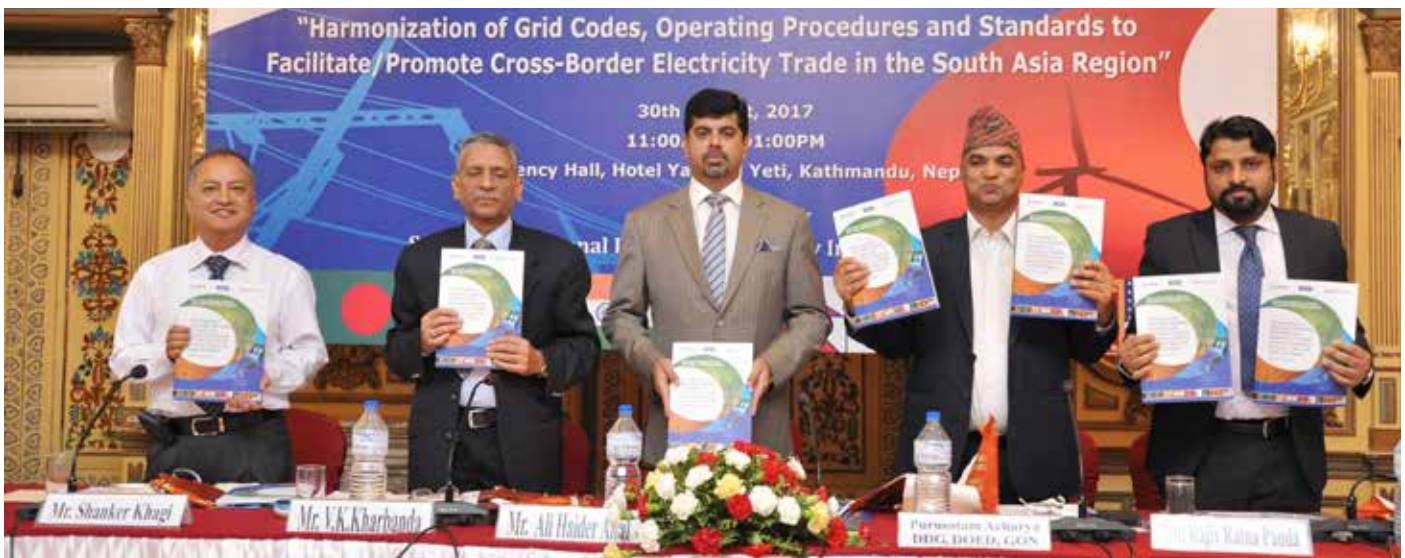
PARTICIPANTS:

- Mr. Bhim Bahadur Rawal, MP & former Home Minister, Achham (Upper Karnali Hydropower project district)
- Mr. Prakash Jwala, Chairperson, Parliamentary Finance Committee
- Mr. Mohan Prasad Baral, Chairperson, Parliamentary Committee on Agriculture & Water Resources
- Mr. Rabindra Adhikari, Chairperson, Parliamentary Development Committee
- Mr. Taraman Gurung, MP & State Minister for Health, Sankhuwasabha (Arun 3 Hydropower Project)
- Mr. Laxmi Prasad Pokharel, MP, Dailekh (Upper Karnali Hydropower project district)
- Mr. Ammar Bahadur Thapa, MP, Dailekh (Upper Karnali Hydropower Project District)
- Mr. Bharat Saud, MP, Achham (Upper Karnali Hydropower Project District)
- Mr. Maha Prasad Adhikari, CEO, Investment Board Nepal (IBN)
- Mr. Madhu Prasad Bhetuwal, Joint Secretary (Technical), IBN
- Mr. Sunil Poudel, Senior Divisional Engineer, IBN
- Mr. Ghanashyam Ojha, Communications Consultant, IBN

PARTICIPATING ORGANIZATIONS:

- World Bank
- TrungSon Hydropower Company Limited
- Electricity Vietnam (EVN)
- Thanh Son Hydropower
- Deloitte Consulting, USAID's Nepal Hydropower Development Project

RELEASE OF REPORT ON HARMONIZATION OF GRID CODES, OPERATING PROCEDURES AND STANDARDS TO FACILITATE AND PROMOTE CBET IN THE SOUTH ASIA REGION KATHMANDU, NEPAL



Release of the “Report on Harmonization of Grid Codes, Operating Procedures and Standards,” Kathmandu, Nepal

The “Report on Harmonization of Grid Codes, Operating Procedures and Standards to Facilitate/Promote Cross-border Electricity Trade in the South Asia Region” was released jointly with the South Asian Association for Regional Cooperation (SAARC) secretariat in Nepal. Mr. Haider Ali Altaf, Director of Energy, Transport, Science, and Technology Division in the SAARC Secretariat, Nepal, and Mr. Purusotam Acharya, Deputy Director General, Government of Nepal, jointly released the report. While lauding the efforts of the SARI/EI program, Mr. Altaf, Director, SAARC Secretariat, added: “A safe and secure integrated grid in South Asia will help enhance power trade and long-term sustainability in the region.” Mr. V.K. Kharbanda, SARI/EI/IRADe highlighted the various initiatives taken under the SARI/EI program. Mr. Rajiv Ratna Panda, SARI/EI/IRADe presented on the key findings of the study.

EXPERT GROUP CONSULTATION WORKSHOP ON MACRO-ECONOMIC BENEFITS OF BANGLADESH-INDIA ELECTRICITY TRADE NEW DELHI, INDIA

The stakeholder consultation workshop on “Macro-economic Benefits of Bangladesh-India Electricity Trade” was held at the Central Electricity Authority (CEA) office, New Delhi, India. The meeting was chaired by Mr. Ravindra

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Kumar Verma, Chairman, CEA. The SARI/EI team comprising of Dr. Anjana Das, Dr. Probal Ghosh and Mr. Vinay Saini presented the key results of the study, followed by a panel discussion. The panelists included representatives from Power System Operation Corporation (POSOCO), Powergrid, Indian Energy Exchange (IEX), Central Electricity Regulatory Commission (CERC), NITI Ayog, and CEA.



Expert group consultation meeting on “Macro-economic Benefits of Bangladesh-India Electricity Trade” in New Delhi, India

SOUTH ASIAN REGIONAL POWER EXCHANGE (SARPEX) MOCK EXERCISE ONE-TO-ONE MEETINGS WITH CENTRAL ELECTRICITY AUTHORITY NEW DELHI, INDIA

SARI/EI/IRADe met with the Central Electricity Authority’s Office of the Member (Power System) on September 15, 2017 in New Delhi, India to discuss the SARPEX mock exercise, its mode of operations, the SARI/EI/IRADe comments on CBET guidelines, and the SARPEX roadmap. The group discussed results specific to the Indian context and its long term impact on the Indian domestic market. The team showcased the key assumption for transmission and methodology for running the mock exercise. The possible market design and its defined rules for implementation of the idea were also discussed.

NATIONAL WORKSHOP ON ENHANCING RENEWABLE ENERGY IN SRI LANKA: ADDRESSING GAPS IN POLICIES AND REGULATIONS & PROMOTING REGIONAL COOPERATION COLOMBO, SRI LANKA

The Sri Lankan Youth Climate Action Network (SLYCAN) Trust partnered with the Climate Change Secretariat of Sri Lanka and SARI/EI, to organize a multi-stakeholder “National Workshop on Enhancing Renewable Energy in Sri Lanka: Addressing Gaps in Policies and Regulations & Promoting Regional Cooperation,” in Colombo, Sri Lanka on September 20, 2017. Around 35 stakeholders, including policy makers, private sector, civil society organizations and academia, attended the workshop.



National Workshop on Enhancing Renewable Energy in Sri Lanka: Addressing Gaps in Policies and Regulations & Promoting Regional Cooperation, Colombo, Sri Lanka

OUTREACH ACTIVITIES

1. SARI/EI participation in the SAARC Investment Forum & Trade Fair, Colombo, Sri Lanka

Mr. V.K. Kharbanda, SARI/EI/IRADe participated as a panelist in the session on “Investment Outlook of South Asia” in the SAARC Investment Forum & Trade Fair held in Colombo, Sri Lanka on September 6 – 9, 2017. Around 200 participants from South Asian countries participated in the forum. Mr. Ranil Wikramasinghe, Honorable Prime Minister, Sri Lanka addressed the participants at the inaugural session.



SAARC Investment Forum & Trade Fair, Colombo, Sri Lanka

2. SARI/EI Participation in the second BRICS Forum on State Owned Enterprises (SOE) Reform and Governance; and Global Energy Interconnection Forum Beijing, China

A SARI/EI/IRADe team consisting of Dr. Jyoti Parikh and Mr. Kharbanda, participated as speakers and presented a paper

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on energy in the second BRICS Forum on SOE Reform and Governance held in Beijing, China on September 22, 2017. They also participated in the Global Energy Interconnection Forum 2017 also held in Beijing, China on September 26, 2017. Dr. Jyoti Parikh presented on “BRICS Cooperation in Oil and Gas Sector” and Mr. Kharbanda made a presentation on “South Asia Regional Cooperation: Investment Prospects, Opportunities, and Challenges.” Over 300 participants from countries across the globe attended the forums.



Second BRICS Forum on State Owned Enterprises Reform and Governance; and GEI Forum, Beijing, China

The purpose of the Global Energy Interconnection Development and Cooperation (GEIDCO) is to promote the establishment of a global energy interconnection (GEI) system; to meet the global demand for electricity in a clean and green way; to implement the United Nations “Sustainable Energy for All”; climate change initiatives; and to serve the sustainable development of humanity. The total members of GEIDCO are 305 located in 42 countries and states in all five continents. SARI/EI/IRADe is also member of the GEIDCO.

STATUS OF DEMAND DRIVEN STUDIES

Task Force 1 Studies:

- **The study on “Regional Investment Framework and Policy Guidelines for Promoting Investment in South Asian Countries and in Cross-border Power Projects in South Asian Region”:** The consultation process has been completed and the draft report is under review and finalization. The study will provide a regional investment framework and policy guidelines for promoting investment in South Asian countries and particularly in CBET projects.
- **Building Consensus and Developing a Whitepaper on South Asian Forum of Electricity Regulators (SAFER):** The white paper on the South Asian Forum of Electricity Regulators (SAFER) containing suggested structure, functions, and roles and responsibilities of the forum of regional regulators has been completed and is under design and printing.

Task Force 2 Studies:

- **Assessment of the Trading Potential – CO2 Emission Reduction and Economic Benefits:** The consultant ICF has submitted the draft report on additional scope of work on CO2 emission reduction and economic benefits and it is under review and finalization. The combined report on Assessment of Trading Potential covering the economic benefits and CO2 emission reduction will be edited and printed during the next quarter, then disseminated for strategic outreach and consensus building for buy-in of task force recommendations.

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- **Harmonization of Grid Codes, Operating Procedures and Standards to Facilitate/Promote CBET in South Asia:** The report on harmonization of grid codes, operating procedures and standards for regional interconnection power systems to promote cross border electricity trade in South Asia region has been completed. The report was finalized after two years of detailed and extensive deliberation and analysis among task forces members, the technical team of SARI/EI, and various stakeholders. The study covers three volumes, analysis of existing grid codes of South Asian countries, gap analysis, international best practices, and impact analysis based on the international power pools. The Framework Grid Code Guidelines (FGCG) volume 3 has been published in Nepal and Bhutan. The report is first of its kind for the South Asian region.

Task Force 3 Studies:

- **Study reports on Commercial Terms and conditions; Model PPA and TSA & model for Power Exchange:** The report was finalized after two years of detailed and extensive deliberation and analysis among task forces members, the technical team of SARI/EI and various stakeholders. The copy editing and further design of the report has been completed.
- **Pilot Market/Mock exercise of SARPEX (South Asian Regional Power Exchange):** The capacity building and consultation process have been completed. The preliminary run has been completed for the submitted bids and of the participating nations are working on an exchange platform. Workshops were conducted in Nepal, Bhutan and Bangladesh to present the initial findings of the study and sensitize the members with the concept.

Implementation of SARI/EI Task Force recommendations and Article of SAARC Framework Agreement on Energy Cooperation:

- **Developing the framework and guidelines for a non-discriminatory open access regime in transmission and grant of open access to initiate power trading and facilitate CBET in the South Asian countries**

The consultation process has been completed and the draft final report on the international best practices related to open access in other regions of the world is under review and finalization. The report is expected to be completed by October/November 2017.
- **Developing a model framework for trading license regime and guidelines for grant of trading license to initiate/advance power trading in South Asian countries and facilitate CBET in the South Asian countries**

The consultation process has been completed and the draft final report is under review and finalization. The report is expected to be completed by October/November 2017.
- **Study on building consensus and developing and creation of regional technical institutional mechanism for coordination of transmission & system /operation planning South Asia**

The request for proposals has been issued. The bids are under review and finalization.
- **Study on developing regional dispute settlement framework for CBET in South Asian Region**

The request for proposals has been issued. The bids are under review and finalization.
- **Developing BIMSTEC energy outlook**

The study is focused on developing an energy outlook for the BIMSTEC region and analysing it for future scenario. The study was extend to August 31, 2017. The draft report is under review, and the comments have been shared with the consultant for incorporation.

SARI/EI Analytical Studies:

- **Economic Benefits from Bangladesh-India CBET**

An Expert Group Consultation Meeting on Economic Benefits from Bangladesh-India Electricity Trade was held at Central Electricity Authority Office, New Delhi India on August 31, 2017. The following progress has been made in the last quarter:

- Model iteration and result preparation for the expert group consultation meeting
- Incorporation of suggestions in final report received during the expert group consultation meeting
- Preparation of final report and executive summary

- **Linking South Asia with Burma & Southeast Asia to Advance Cross Border Electricity Trade: A Political Economy Study**

The consultant (Deloitte Touche Tohmatsu India LLP) has completed the analysis and has submitted an annotated outline. SARI/EI/USEA has provided feedback that will be incorporated into the final report.

Think Tank Forum

Implementation of NDCs for Renewable Energy in Sri Lanka: Addressing Gaps in Policies & Regulation: SLYCAN Trust in partnership with the Climate Change Secretariat of Sri Lanka and SARI/EI, organized a multi-stakeholder national workshop in September 2017 on Enhancing Renewable Energy, in Sri Lanka: Addressing Gaps in Policies & Regulations & Promoting Regional Cooperation.

- **Research/Impact Research on CBET and National Events (meetings/workshop) for encouraging CBET:** Field surveys for the study were completed and a monitoring visit to Bangladesh for the survey sites was held September 22 – 26, 2017.
- **Assessment of Impact of CBET on Livelihoods and Gender Concerns:** Case Study Approach and Regional workshop for boosting CBET in BBIN region: CUTS completed the field work for Nepal in June 2017 and for selected locations in Bhutan in July 2017. Draft case studies are under preparation. A regional workshop is planned in November/December 2017 to create a platform for sharing case studies on benefits of CBET and using the evidence for a dialogue among state and non-state actors to push for greater cooperation, coordination and integration of energy infrastructure, technology, investments, and human capital within the South Asian region, with focus on Bangladesh-Bhutan-India-Nepal.
- **Media Engagement for Creating Awareness on Benefits of CBET between Nepal and India:** Translation of the executive summary of the study on benefits of CBET to Nepal has been completed. As part of media engagement, the Institute for Integrated Development Studies (IIDS) published an article in a leading newspaper of Nepal – The Himalayan Times (English) on June 25, 2017. The article can be found on the below weblink: <http://epaper.thehimalayantimes.com/detailimageviewer.php?id=2487&boxid=3275&cid=3&mod=1&pagenum=1&pagedate1>

ONGOING AND UPCOMING ACTIVITIES

- *Second Capacity Building Program on “SARPEX Mock Exercise” New Delhi, India, October 4 – 5, 2017*
- *Roundtable Consultation Workshop on “Developing Framework and Guidelines for Non-discriminatory Open Access Regime in Transmission and Model Framework for Trading License Regime for Advancing/Facilitating CBET and Release of Grid Code Report”*
Thimphu, Bhutan, October 4, 2017
Consultation meeting with SAARC Development Fund on Investment Framework Study
Thimphu, Bhutan, October 5, 2017

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- *Consultation Meeting with BIMSTEC Secretariat on BIMSTEC Energy Outlook Report Dhaka, Bangladesh, November 8, 2017*
- *Stakeholder Consultation Workshop on “South Asian Regional Power Exchange (SARPEX) - Mock Exercise” Colombo, Sri Lanka, November 15, 2017*
- *Task Force 3 Meeting and Release of Model PPA and TSA Colombo, Sri Lanka, November 16, 2017*
- *BIMSTEC Energy Outlook Report and Analytical Study on India-Bangladesh Report Release & Think Tank Forum (TTF) Workshop Dhaka, Bangladesh, November 23 – 24, 2017*
- *Workshop by IIDS, Nepal under TTF to engage with media, civil society, parliamentarians and elected representatives for wider dissemination of the study Kathmandu, Nepal, November 27 – 28, 2017*
- *Meetings with Indian stakeholders to discuss the key findings of SARPEX-Mock exercise New Delhi, India, November and December 2017*
- *Regional workshop with CUTS, India under TTF to create a platform for sharing of case studies on benefits of CBET New Delhi, India, November/December 2017*
- *Project Steering Committee Meeting, December 2017*
- *Executive Exchange on Electricity Markets and Renewable Grid Integration for Bhutan and India Australia, December 2017*
- *Release of RFP for Training on the Design, Management and Operation of a Power Trading Entity for Pakistan Details of the RFP can be found on www.usea.org.*

ABOUT SARI/EI

The SARI/EI program, funded by the United States Agency for International Development (USAID), promotes integration of energy systems and enhances cross-border energy trade (CBET) among the South Asian countries by focusing on the following three development outcomes for overall socio-economic development of the region:

Harmonize Policy, Legal and Regulatory Issues

The key result of the Harmonization of Policy, Legal and Regulatory Issues component is to create the enabling systemic conditions for a sustainable market for investment and implementation of cross-border energy trade.

Advance Transmission System Interconnections

The key result of the Advancement of Transmission System Interconnections component is to create the enabling, systemic conditions for a sustainable market for investment and implementation of subregional bilateral transmission interconnections beginning with the Eastern Subregion of South Asia.

Establishment of South Asian Regional Electricity Markets

The key result of this component on Establishment of South Asian Regional Energy Market is to create the enabling and systemic conditions for a sustainable market for energy trading and exchange among the South Asian countries.

The overarching objective of the SARI/EI program is to develop a common template for technical and commercial aspects of power exchange among the South Asian countries. It intends to create the right enabling environment to support the establishment of a South Asian electricity market, gain consensus and support from the key decision makers and stakeholders in the South Asian region.

SARI/EI WEB PAGE

For current information on SARI/EI, please visit the web page: www.sari-energy.org.

BACKGROUND

Over the last two decades, South Asia has been one of the fastest growing regions in the world, with an average annual growth rate of 6% as measured by GDP per capita. Yet despite this impressive macroeconomic growth, the energy sector in the region has not been able to keep pace, and continues to experience chronic problems of supply shortage and poor quality of service. South Asia's energy security dilemma is one of the single energy development challenges of the 21st century critical to the economic future of almost 1.5 billion people. Given this dilemma, the only long-term solution is the sustained increase in regional energy cooperation among the South Asian countries.

USAID's South Asia Regional Initiative for Energy's (SARI/E) role over the past decade in advocating energy cooperation in South Asia has transitioned to the next phase of advancing regional energy integration and cross-border energy trade (CBET) in eight South Asian countries (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka).

This new phase titled South Asia Regional Initiative for Energy Integration (SARI/EI) is designed to build upon USAID SARI/Energy's successful implementation in the past decade to move South Asian countries towards increased regional energy security. The program will address policy,



legal, and regulatory issues related to energy in the region; promote transmission interconnections; and work towards establishing a regional market exchange for electricity.

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FROM THE AMERICAN PEOPLE

SARI/EI

South Asia Regional Initiative for Energy Integration

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*South Asia Regional Initiative for Energy Integration (SARI/EI)
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