SAARC Energy Centre, (SEC)
Islamabad, Pakistan

Setting the Perspective

Dissemination Workshop on
Potential for Energy Storage Technologies in Electricity Sector of SAARC member states (ESTES)
Kathmandu, Nepal (13-14 Nov 2017)

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(Program Coordinator)

Learn, share, improve and grow together

Background

Globally Electricity Storage is emerging as potential means to support:

- Existing electricity networks,
- Facilitate the efficient operation of electricity markets, Improving grid stability and
- Meeting energy requirements

Considering its importance SEC, proposed this study under its thematic area of Programme on “Integrated Assessments of Energy, Transport, and Environment (PETREN)”

Objectives

To provide SAARC Member States with a set of viable options with respect to energy storage technologies in the perspective of success stories from the region and beyond.

- Review existing Policy options and Regulatory framework of ESTES globally and consider in context of SAARC Member States
- Review various technologies deployed globallyReview specific barriers (technical, economical, regulatory issues) that hinder ESTES in SAARC Member States
- Explore commercial application potentials of electricity storage

Terms of Reference (TORs)

1. Assess the energy storage market for all applicable areas in SAARC region;
2. Review best practices of energy storage systems deployed on utility and commercial scale outside the SAARC Region;
3. Identify barriers and suggest measures for promotion and adoption of Energy Storage Technologies/ Projects in SAARC Member States;
4. Explore financial aspects of energy storage options in electricity sector of SAARC Member States;
5. Suggest measures for creating the enabling environment for application of the Energy Storage Technologies in electricity sector of all SAARC Member States;

Terms of Reference (TORs) -----

6. Suggest facilitation for relevant regional cooperation and institutional partnerships in capacity building;
7. Explore commercial application potentials of electricity storage in remote electricity systems, distribution utility support, grid stability, residential and commercial storage systems using storage technologies such as batteries, flywheels, compressed gas, pumped hydro etc.
8. Propose a brief action plan for successful implementation of Energy Storage Policy and market development in SAARC Region.

Highlights

- Request for Proposal (RFP) floated
- Eight Proposal qualified
- Transparent Evaluation
  - Technical followed by Financial

Study Team

- Prof. Dr. Tahir Nadeem Malik – Team Leader
  - Mr. J. L. Jaramillo Enciso – UK (Member)
  - Mr. Mohan Menon – India (Member)
  - Mr. Omair-Khalid – Pakistan (Member)
  - Mansoor-Ashraf – Pakistan (Member)

Deliverables

- Fortnightly Progress Reports
- Draft Report
- Final Study Report

Peer Reviewer - Mr. Hassan Jafar Zaidi

- Total 45 major comments were given
- Most of them were addressed and incorporated
- In some cases Study Team provided justification
- In overall context Peer Reviewer appreciated the outcome

Main Features

- Energy Storage of Global importance
- Various applications at Grid/ utility level such as:
  - Support existing electricity networks
  - Efficient operation of electricity markets
  - Grid stability
  - Utility scale load-leveling & frequency regulation