Regional Training Program on Cybersecurity

Introducing South Asia Regional Energy Partnership (SAREP)

South Asia Regional Energy Partnership (SAREP) – Overview

Program Period
May 2021 – May 2026

Regional Countries:
Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka

Key Ministries in South Asia:

India - Ministry of New and Renewable Energy, Ministry of Power, Ministry of Heavy Industries, Ministry of Housing and Urban Affairs

Sri Lanka – Ministry of Power and Energy.

Bhutan – Ministry of Energy and Natural Resources , Department of Energy, Ministry of Infrastructure and Transport

Nepal – Ministry of Energy, Water Resources and Irrigation

Bangladesh – Ministry of Power, Energy and Mineral Resources, Powercell

Maldives – Ministry of Environment, Climate Change and Technology
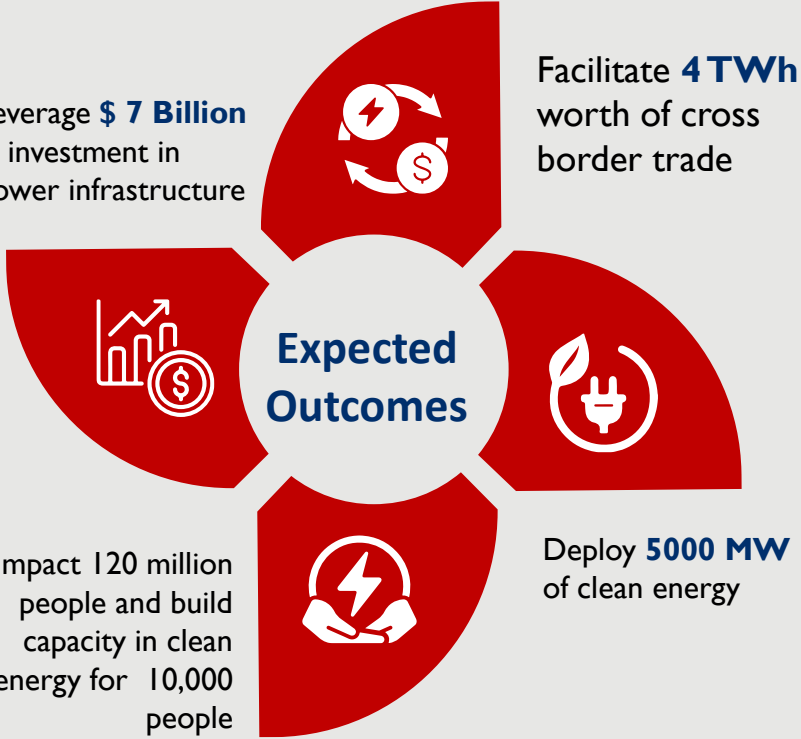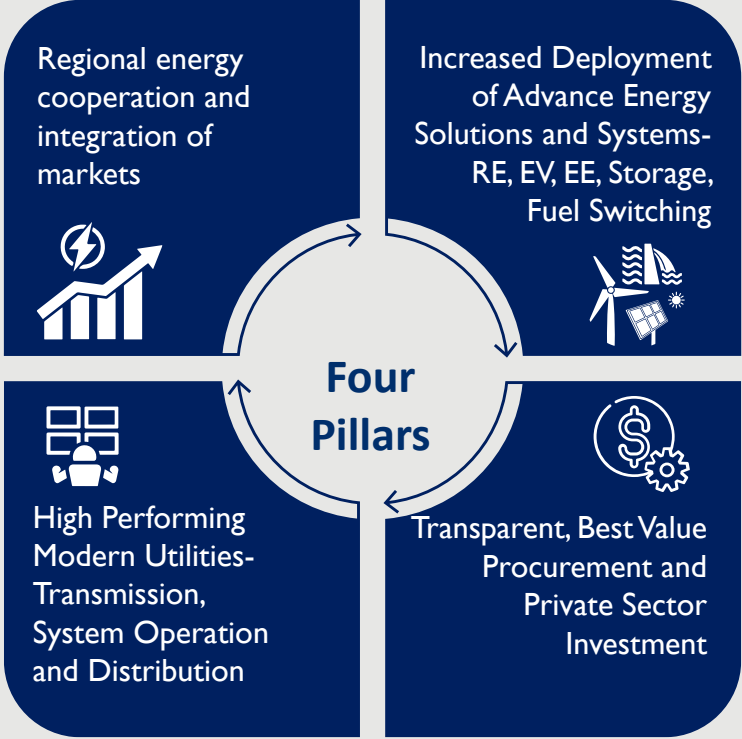
Sub-national Partner States in India:

Key Govt Agencies:

- **India –** Indian Railways, NTPC, EESL, PFC, CEA, FoR, CERC, SCGJ, PSSC, NPTI, SJVNL, Niti Aayog, Grid India, CEA
- **Sri Lanka –** Ceylon Electricity Board, Public Utility Commission of Sri Lanka , Energy Development Authority, Reform PDA
- **Bhutan –** Bhutan Power Corporation, Bhutan Power System Operator, Druk Green Power Corporation, Electricity Regulatory Authority
- **Nepal –** Nepal Electricity Authority, Hydropower Investment Development Corporation, NIFRA, Electricity Regulatory Commission
- **Bangladesh –** Bangladesh Electricity Regulatory Commission, SREDA, DPDC

South Asia Regional Energy Partnership (SAREP) – Pillars and Expected Outcomes

Four Pillars

Regional energy cooperation and integration of markets

Increased Deployment of Advance Energy Solutions and Systems- RE, EV, EE, Storage, Fuel Switching

High Performing Modern Utilities- Transmission, System Operation and Distribution

Transparent, Best Value Procurement and Private Sector Investment

Expected Outcomes

Leverage **$ 7 Billion** in investment in power infrastructure

Facilitate **4 TWh** worth of cross border trade

Deploy **5000 MW** of clean energy

Impact 120 million people and build capacity in clean energy for 10,000 people

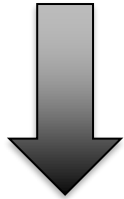| Private Sector Engagement | Pollution Mitigation | Gender, Equality and Social Inclusion | Human Resource Development | Lifestyle for Environment (LiFE) |

Thematic Areas

Net Zero Energy

Investment Facilitation

Energy Efficiency

Cross Border Electricity Trade

SOUTH ASIA REGIONAL ENERGY PARTNERSHIP (SAREP)

Renewables Energy and Storage

Transmission and System Operation

E-mobility

Distribution

Green Hydrogen

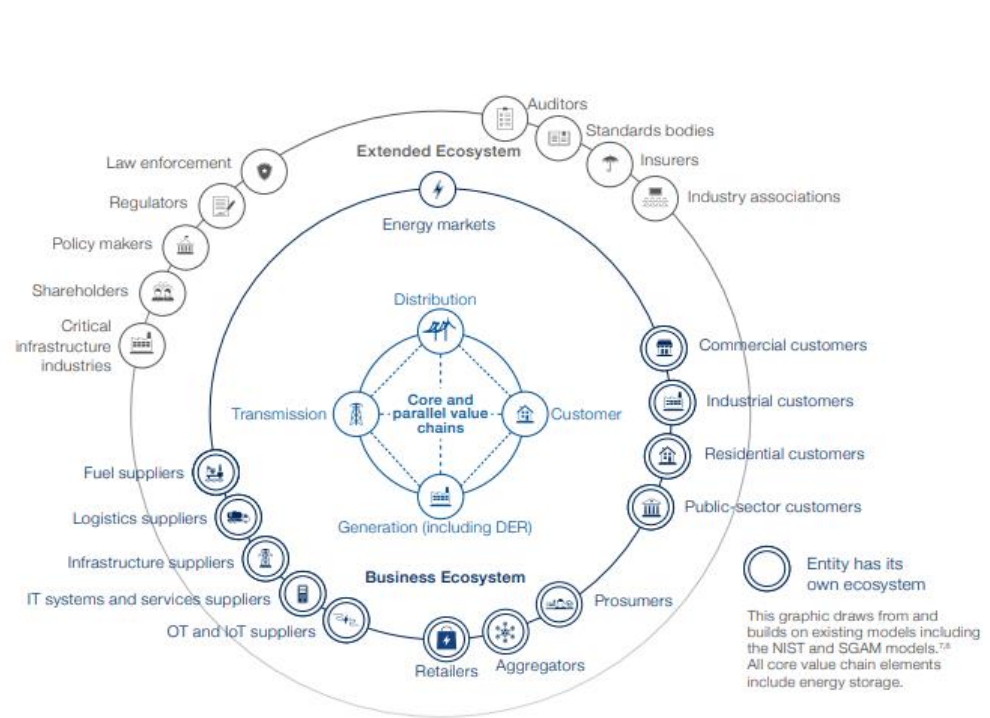# Estimated Digitization across the Power Utility value chain

- The global digital power utility market is projected to grow from

  $55.02 B in 2021

  ⬇

  $239.38 B (2028)

  at a CAGR of **23.4%**

  Source: https://www.fortunebusinessinsights.com/industry-reports/digital-power-utility-market-100959

Source: Cyber Resilience in Electricity Eco-system-World Economic Forum

The scale of investments and the raising concerns underscore the need for increased focus on Cybersecurity

SAREP approach for supporting the Power utilities in Cyber-aware digital transformation

Objective

- To create cybersecurity awareness among the key stakeholders and capacity building
- To enhance the utilities preparedness in effectively managing the cyber risks

Approach

- Perform an "as-is" assessment to understand the status of adoption of cyber-protection practices using the posture assessment tool
- Provide recommendations on identified areas for improvement to adopt international best practices
- Conduct training programs/workshops tailored to specific needs of the stakeholders

Outcome

- Increases awareness on the cyber threats and their effective management
- Enhanced human capacity with knowledge and understanding to deploy the effective measures

Flow of the training program

Day – 1 : Industrial Control Systems (ICS), SCADA & Smart Metering Security	
Session 1	Security perspectives in the power sector – Dr Faruk Kazi,
Session 2	Technological landscape – Mr. Navin Mehra, Leader, Regional Sales, Cyber Security, CISCO
Session 3	Smart metering Infra - Dr Shailendra Fuloria, CISO at Nagarro
Day – 2 : Standards, Policies and Tools for Cyber Security	
Session 4	Corporate Security Culture & Business Continuity Plan - Mr. Sanjay Damle (Ex CISO Tata Power)
Session 5	Cyber Security Standards – Mr. Shiv Kataria (Siemens, Bangalore)
Session 6	Indian Regulations and Compliances – Mr. Anand Shankar (Chief GM, Technology Development PGCIL)
Session 7	Demonstration of Tools- SAREP Cybersecurity Posture Assessment Tool (CPAT) - Dr Faruk Kazi
Day– 3 : Practical demonstration sessions	
Session 8	Cyber Kill Chain & MITRE framework - Dr Faruk Kazi
Session 9 (Lab Visit)	Practical demonstration with below modules, Lab visit to VJTI, Mumbai - Threat Modelling and Demonstrations, Generation, Transmission, Smart metering infrastructure
Closing	Assessment, valedictory, and feedback

Thank You