



Cambodia Country Spotlight

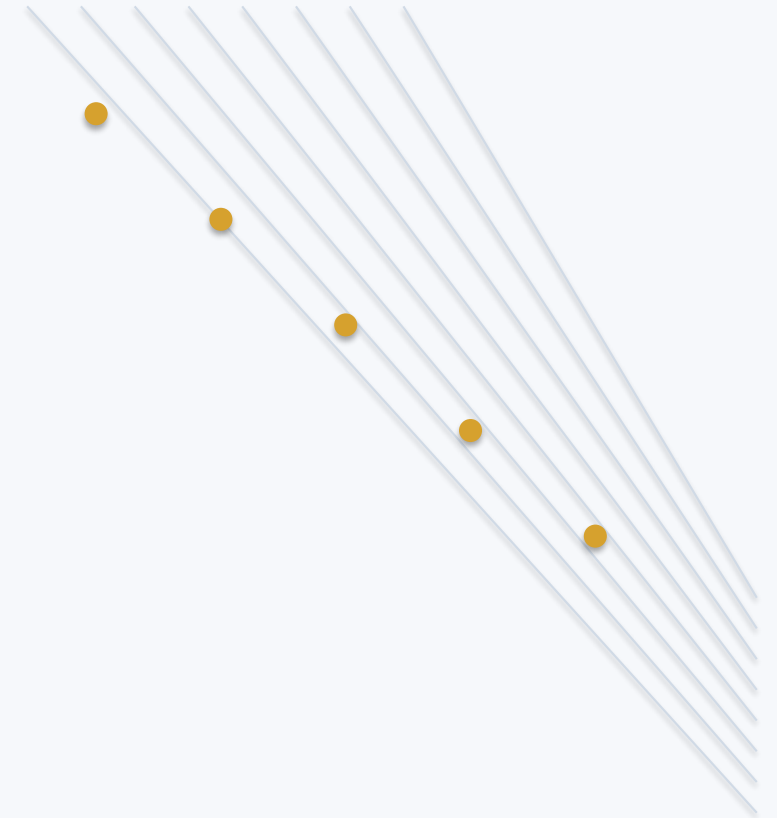
Securing Digital Transformation for a Resilient Power Sector

Digitalization, Cybersecurity, and Smart Grid Readiness

Presented by

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Cambodia Power Sector and EDC Digital Transformation Context

Cambodia is accelerating energy-sector digital transformation for reliable, secure electricity services.

EDC role

- EDC is an autonomous, state-owned limited liability in Cambodia
- EDC supports national electricity service delivery
- EDC operates critical ICT systems and grid infrastructure
- EDC maintains services for end users and customers

National digital direction

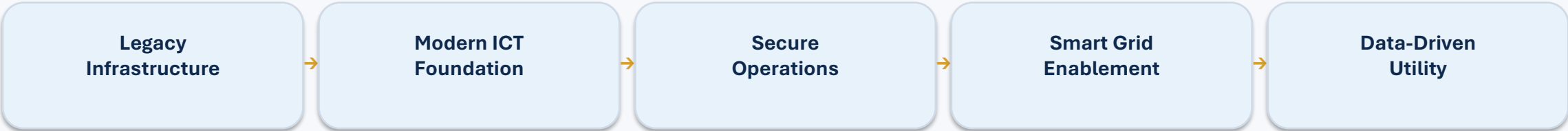
- Digital Economy and Society Policy Framework
- Government-sector digital transformation
- Secure digital services for energy stability

Transformation focus

- ICT security governance
- Infrastructure and network modernization
- Foundation for smart grid operations

From ICT Infrastructure to Secure Smart Utility Operations

EDC is modernizing its ICT foundation to enable secure, reliable, and future-ready utility operations.



Strengthen foundation

- Modernize core ICT and network infrastructure
- Improve availability and reliability

Improve visibility

- Enhance controls around critical systems
- Move toward centralized monitoring

Implement cybersecurity model

- SCADA and ICT Governance
- Network Security
- System Security
- Monitoring
- Incident Response
- Capacity Building

Enable smart utility

- Prepare for AMR / AMI and automation
- Build data-driven operation readiness

Undergoing project with AFD

ESTABLISHMENT OF NEW CONTROL CENTRES: SMART METER PILOT PROJECT

Objective of the project

To Study and Evaluate the contribution of smart metering system. As a priority, EDC wants to have an infrastructure to measure technical and non-technical losses at the level of a MV feeder

This objective is aligned with EDC's strategy on implementation this measurement

Requirements for AMI implementation

- Smart Meter (Compatibility with EDC Head End System)
- Communication infrastructure (Compatible EDC Optical Fiber Network and Cellular Network)
- Meter Data Management (Compatible with EDC Existing System)
- Critical Testing Criterion
- Software
- Training

Undergoing project with World Bank

Cambodia Sustainable Energy Transition (CSET): AMI PILOT PROJECT

Objective of the project

The investment will be focused on installation of three-phase meters with AMI in selected provinces as well as single phase with AMI meters. Subject to the availability of financing, the Project may also support improvements to telecommunications infrastructure and the integration of Supervisory Control and Data Acquisition (SCADA) systems.

Tentative Scope of Work

- 3,000 three phase direct LV meters
- 1800 three 3phase indirect LV meters
- 1200 three phase indirect MV meters
- 21,100 single phase meters

Undergoing project with World Bank

Consulting service for smart grid strategy and roadmap to inform the digitization process/investment in EDC network

Objective of the project

- The reduction of (technical and commercial) losses, improve reliability and efficiency of the electricity sub-transmission and distribution network .
- The development of standards or specifications for deployment of AMI
- Given the increased penetration of renewable energy, digitization of its network would facilitate optimal integration of distributed energy resources across its network.

The overall objective would be to improve its operating performance, reduce losses and increase financial viability

Scope of Work

- Development of Smart Grid Strategy and Road Map
- Development of bid specifications for implementation of Advanced Metering Infrastructure (AMI) for EDC distribution network
- Information Dissemination
- Capacity Development

Key Challenges and Learning Expectations from Italy

EDC aims to modernize legacy infrastructure, strengthen cybersecurity, and learn practical utility approaches.

Cambodia / EDC priorities

- Modernize legacy infrastructure
- Maintain service continuity and reliability
- Defend against sophisticated cyber threats
- Strengthen governance and secure ICT infrastructure
- Improve incident response and technical capacity
- Enable smart utility and data driven approach

Learning expectations from Italy

- Smart grid, AMI, automation, and digital substation implementation
- Cybersecurity frameworks for energy critical infrastructure
- Secure renewable and DER (Distributed Energy Resources) integration approaches
- Data, AI, forecasting, and platforms for utility operations
- Lessons for Cambodia's roadmap

Closing: EDC's priority is secure, resilient, and future-ready utility operations for Cambodia's digital energy transformation.