

Proposed Cluster RETA : Regional Cooperation on Increasing Cross Border Energy Trading within Central Asia Power System

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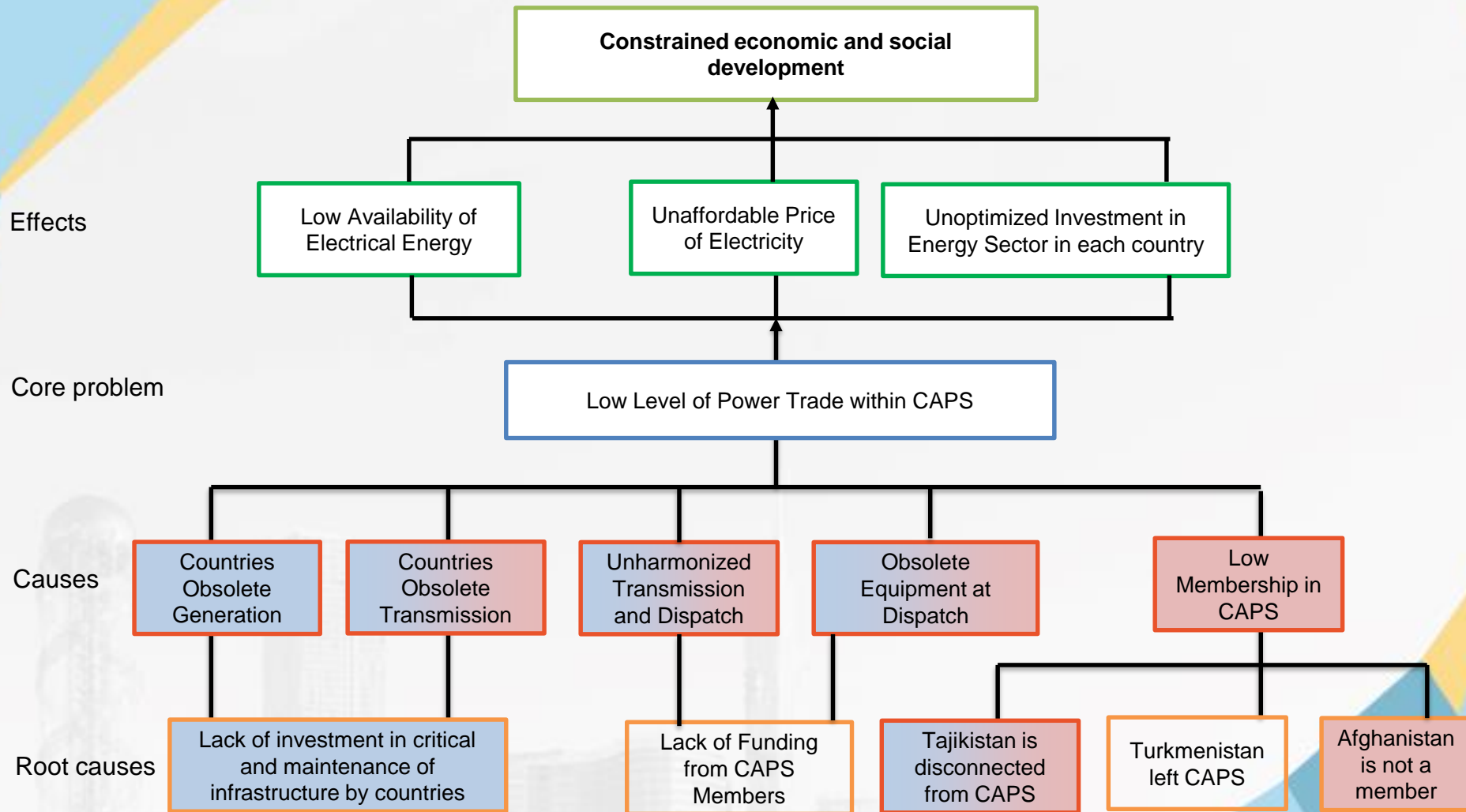
THE 28TH CAREC
COORDINATING COMMITTEE MEETING
Batumi, Georgia 10 September 2018



A. Background

- Need identified by CDC 'Energiya' at CAREC ESCC Meeting, Ashgabat, March 2018
- Endorsed by ESCC
- ADB began consultations and processing immediately
- Target commencement is Q4 2018

Problems to be addressed



Tackled through existing ADB projects

Tackled through this project

A. Rationale

- Power trade in Central Asia Power System (KAZ, KYZ, TAJ, UZB) in decline since collapse of USSR in 1992
 - 7,602 million kWh traded in 1995
 - 2,256 million kWh traded in 2010 (after TAJ disconnection from CAPS)
 - 2,808 million kWh traded in 2016
- CDC “Energiya” oversees energy flows in CAPS using Soviet equipment. KYZ, TAJ and KAZ upgraded electric grids and national dispatch centers

A. Rationale

- Afghanistan is not CAPS member despite large bilateral trade with UZB, TAJ and TKM
- Tajikistan and Uzbekistan are working toward parallel operation (following heads of state meeting on 9 March 2018)

A. Rationale

- Fully aligned with CAREC 2030 Strategy
 - Directly contributes to the Infrastructure and Economic Connectivity Cluster
 - Bridging the gap between energy supply and demand by facilitation of cross-border trading
- Fully corresponds to CAREC Energy Work Plan for 2016-2020, specifically Element 2 “Promoting Regional Electricity Trade and Harmonization”

A. Rationale

- Continuation of a long-term strategy for developing the region's energy sector (CAREC 7th Ministerial Conference 2008. Strategy for Regional Cooperation in Energy Sector, Baku)
- Part of the action plan to expand the regional power network as a means to increase trade in power (CAREC 8th Ministerial Conference 2009. Energy Action Plan Framework. Ulaanbaatar)

B. Proposed Solutions

- Outputs
 1. Subproject 1: Coordinating Dispatch Center “Energiya” is modernized
 2. Subproject 2: Solutions to the bottlenecks to the regional power trade are provided
 3. Subproject 3: Membership in CAPS expanded and new energy markets explored

B. Proposed Solutions

- **Impact.** The cluster TA is aligned with the following impact:
 - countries' emission reduction target achieved
 - CAREC regional cooperation framework accomplished and
 - energy security in selected CAREC countries enhanced.

B. Proposed Solutions

- Outcome

increased cross-border clean energy trade using high level technology by CDC from 3,109 million kWh in 2017 to at least 11,000 million kWh in 2021

Resulting in emission reduction by 5,587,560 tCO₂. The high level technology will replace manual processes to allow CDC to operate in real time regime

C. Proposed Financing Plans and Modality

- **Estimated RETA cost – \$4.5 million**
 - Subproject 1: \$2.5m
 - Subproject 2: \$1.5m
 - Subproject 3: \$0.5m

Several ADB administered trust funds are envisaged to be involved in financing.

D. Implementation period

Subproject 1:

- 1.1 Recruit the consultant to assess the need and design state of the art system (Q4 2018).
- 1.2 Regional workshop (with at least of 50% women's participation) organized (Q2 2019)
- 1.3 Procure EDM system (Q4 2019).
- 1.4 Install EDM system by the consultant (Q3 2020).
- 1.5 Train CDC staff (with at least of 50% of women) in the use of the system (Q4 2020)

D. Implementation period

Subproject 2:

2.1 Engage the consultant (Q4 2018).

2.2 Identify and propose solutions for endorsement of Central Asia United Power System Council (Q1 2021).

2.3 Organize high and working level meetings (Q1 2019 – Q1 2021).

D. Implementation period

Subproject 3:

3.1 Engage consultant (Q4 2018).

3.2 Assess Afghan electricity grid to check compatibility with CAPS (Q2 2019).

3.3 Produce recommendation for endorsement by Central Asia United Power System Council (Q4 2019).

3.4 Afghanistan adopts action plan for joining CAPS (Q4 2019)

D. Implementation period

Subproject 3 (continued):

3.5 Consult with Turkmenistan (Q1 2019).

3.6 Turkmenistan expresses interest to join CAPS (Q2 2019).

3.7 Organize high and working level meetings (Q1 2019 – Q4 2021).

E. Implementation Arrangements

- ADB will be the executing agency and will engage and manage consultants
- Implementing Agencies: CDC Energiya, national utilities and national dispatch centers
- Consultant firms will be engaged using QCBS. One consultant for Subproject 1, while Subproject 2 and 3 consultant may be combined together
- Resource persons and individual consultants will engaged as required.