



# Technical Assistance Report

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Project Number: 48066-001  
Capacity Development Technical Assistance (CDTA)  
December 2014

## Islamic Republic of Pakistan: Strengthening the Central Power Purchasing Agency

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**Asian Development Bank**

## CURRENCY EQUIVALENTS

(as of 6 November 2014)

Currency unit	–	Pakistan rupee/s (PRe/PRs)
PRe1.00	=	\$0.0097
\$1.00	=	PRs102.8300

## ABBREVIATIONS

ADB	–	Asian Development Bank
CPPA	–	central power purchasing agency
NEPRA	–	National Electric Power Regulatory Authority
TA	–	technical assistance

## NOTE

In this report, "\$" refers to US dollars.

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## CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 48066-001</b>	
<b>Project Name</b>	Strengthening the Central Power Purchasing Agency	<b>Department /Division</b>	CWRD/CWEN
<b>Country Borrower</b>	Pakistan Government of Pakistan	<b>Executing Agency</b>	Ministry of Water and Power
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ Energy	Energy sector development and institutional reform		1.50
		<b>Total</b>	<b>1.50</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Climate Change impact on the Project	Low
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Governance and capacity development (GCD)	Public financial governance	No gender elements (NGE)	✓
Private sector development (PSD)	Conducive policy and institutional environment		
<b>5. Poverty Targeting</b>		<b>Location Impact</b>	
Project directly targets poverty	No	Nation-wide	High
<b>6. TA Category:</b>	B		
<b>7. Safeguard Categorization</b>	Not Applicable		
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>1.50</b>	
Sovereign Capacity development technical assistance: Technical Assistance Special Fund		1.50	
<b>Cofinancing</b>		<b>0.00</b>	
None		0.00	
<b>Counterpart</b>		<b>0.00</b>	
None		0.00	
<b>Total</b>		<b>1.50</b>	
<b>9. Effective Development Cooperation</b>			
Use of country procurement systems		No	
Use of country public financial management systems		No	

## I. INTRODUCTION

1. The Government of Pakistan requested assistance from the Asian Development Bank (ADB) to support the establishment and initial operationalization of an autonomous central power purchasing agency (CPPA) in Pakistan's power sector. An autonomous CPPA will provide transparency and independence to the settlement and payment system in Pakistan's power sector.<sup>1</sup>
2. A consultation mission was fielded in May 2014, where the government and ADB mission agreed on the impact, outcome, outputs, implementation arrangements, cost, financing arrangements, and terms of reference. This technical assistance (TA) is included in the country operations business plan, 2014–2016 for Pakistan.<sup>2</sup> The concept paper was approved on 20 June 2014. The design and monitoring framework is in Appendix 1.<sup>3</sup>

## II. ISSUES

3. **Sector structure and reforms.** The government has been implementing a strategic power sector restructuring and unbundling plan since 1992 to address the country's persistent power crisis. The progress of the reforms has been slow and the country's power supply and infrastructure requirements have not kept pace with rising demand, constraining growth potential and the country's competitiveness. The current average supply–demand gap is 4,500–6,000 megawatts, resulting in routine load shedding of up to 12 hours in urban areas and 18–20 hours in rural areas.<sup>4</sup>
4. Reforms to the sector structure to date include the unbundling and corporatization of the Water and Power Development Authority into nine regional distribution companies, four government-owned thermal power generation companies, and a transmission company licensed also as a single buyer and seller of electricity—the National Transmission and Despatch Company. The Water and Power Development Authority has retained the hydropower plants. All are fully owned by the government. K-Electric, which is responsible for power generation and distribution in the Karachi area, is listed on the stock exchange and is privately owned. Privately owned independent power producers generate 56% of the country's power (footnote 4). The National Electric Power Regulatory Authority (NEPRA) was established to determine tariffs, issue licenses, and regulate and ensure the long-term sustainability of the sector. The Ministry of Water and Power sets sector policies, including the tariffs paid by electricity customers.
5. To continue the reform process and achieve transparency, market focus, and private sector investment, it is critical to establish an independent purchasing and settlement organization in the form of an autonomous CPPA. Currently, a dedicated unit within the National Transmission and Despatch Company completes all electricity market settlement and payment functions. This TA project will assist with the decoupling of the market settlement and payment functions from the National Transmission and Despatch Company and the establishment of the CPPA as an autonomous settlements company with well-defined governance and financial structures.

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<sup>1</sup> Market settlement and payment functions include the verification of generation and consumption data, calculation of associated charges, issuing of invoices, and payment and collection of funds.

<sup>2</sup> ADB. 2014. *Country Operations Business Plan: Pakistan, 2014–2016*. Manila.

<sup>3</sup> The TA first appeared in the business opportunities section of ADB's website on 12 June 2014.

<sup>4</sup> Government of Pakistan, National Electric Power Regulatory Authority. 2012. *State of Industry Report, 2012*. Islamabad.

6. **Sector performance.** In 2012, electricity distribution and transmission losses in Pakistan reached 23% compared with NEPRA's target of 16%, and collection amounted to 86% of total billing compared with the target of 100%. In 2013, receivables owed by private customers totaled \$2.6 billion or 1.14% of gross domestic product, whereas receivables owed by provincial and federal government customers increased by 7% from 2008 to 2013 and totaled \$1.5 billion or 0.66% of gross domestic product. The lack of transparency in the operation and payment mechanisms has made it difficult to hold private and public sector companies accountable for their performance. The establishment of an autonomous CPPA will make the settlement and payment system independent and transparent.<sup>5</sup>

7. **Government strategy.** This TA project supports the new government's priorities of reforming the energy sector and state-owned enterprises, and restoring sustainability in the power sector. In July 2013, the government approved the National Power Policy to support the country's current and future energy needs. The policy seeks to eliminate load shedding by 2017, by (i) reducing the average system-wide generation cost from \$0.12 per kilowatt-hour to \$0.10 per kilowatt-hour by 2017, (ii) decreasing transmission and distribution losses from the current 23% to 16% by 2017, and (iii) increasing revenue collection from 85% to 95% of total billing by 2017. The government also aims to reduce processing times for all sector operations.

8. **ADB assistance program.** Reforming the energy sector is a key objective of Pakistan's interim country partnership strategy, 2014-2015 and is aligned with ADB's Midterm Review of Strategy 2020.<sup>6</sup> This TA project is included in Pakistan's country operations business plan, 2014-2016 (footnote 2).

9. This TA project is aligned with ADB's programmatic approach for the Sustainable Energy Sector Reform Program.<sup>7</sup> It will update and operationalize the recommendations prepared under a TA project completed in 2006 that were not implemented by the government at that time because of broader structural issues, including insufficient capacity within the NEPRA to formulate market rules.<sup>8</sup> The United States Agency for International Development is providing assistance to the NEPRA on preparing market rules under which the CPPA will operate.

10. **Capacity.** Because of the limited institutional and management exposure to an autonomous and transparent electricity settlement system in the sector, the support of international expertise for the newly engaged CPPA management team, to be provided through this TA, is considered a key prerequisite for the successful operationalization of the CPPA.

### III. THE CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE

#### A. Impact and Outcome

11. The impact will be improved financial management and governance in Pakistan's power sector. This will be indicated by a more transparent market with market pricing available for every trading period. The outcome will be that the CPPA operates an autonomous and

<sup>5</sup> Broader structural issues in the power sector are being addressed under ABD's Programmatic Approach for the Sustainable Energy Sector Reform Program (footnote 6).

<sup>6</sup> ADB. 2014. *Interim Country Partnership Strategy: Pakistan, 2014-2015*. Manila; ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

<sup>7</sup> ADB. 2014. *Programmatic Approach for the Sustainable Energy Sector Reform Program*. Manila.

<sup>8</sup> ADB. 2006. *Technical Assistance to the Islamic Republic of Pakistan for the Establishment and Commencement of Operations for the Central Power Purchasing Agency*. Manila.

transparent electricity settlement system in Pakistan, as indicated by successful completion of the market settlement function in line with the settlements process and timetable.

## B. Methodology and Key Activities

12. The objective of the TA project is to support and enable the establishment and initial operationalization of an autonomous CPPA. This will be achieved by embedding the required international and national consultants in the CPPA to provide management support, capacity building, access to expert resources, and training for the CPPA's management team and employees.

13. The TA project will be completed in two phases. Phase 1 will include the development of the establishment and operation preparedness road map and associated initial internal budget. Preliminary drafts of the additional reporting requirements will be prepared, as required, to inform the road map and associated initial budget. Once the road map and internal budget have been endorsed by the CPPA board of directors, ongoing management support, capacity building, training for the CPPA management team and employees, and reporting requirements will be completed during phase 2. The table summarizes the outputs for each phase.

Technical Assistance Outputs		
Output	Phase 1	Phase 2
1	Road map for establishment and operationalization prepared	
2		Management and organizational structure established
3		Standard market agreements prepared
4		Initial information and technology system plan drafted
5		Internal and external training manuals and activities completed

Source: Asian Development Bank.

14. Before the TA project commences, the CPPA's key management positions, including the chief executive officer, chief legal officer, chief finance officer, and company secretary, must be filled with appropriate personnel.<sup>9</sup>

15. It is assumed the government's commitment to restructuring the sector continues, timely government financial support for sector is maintained for as long as required, and the concurrent work on the market rule guidelines and market rules being completed by the United States Agency for International Development are satisfactorily completed within the targeted time frame. The risks associated with this TA include political pressures delaying or preventing tariff reforms, and deterioration in the security situation within the country delaying consultants and/or counterpart resources.

## C. Cost and Financing

16. The TA is estimated to cost \$1,700,000, of which \$1,500,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-V).

<sup>9</sup> The Ministry of Water and Power has indicated that these appointments will be completed by the fourth quarter of 2014.

17. The government will provide counterpart support in the form of office space and equipment; counterpart staff and technical support; communication facilities; access to data and other relevant information; organizational support related to workshops, training, and meetings to assist the consultants during implementation; and other in-kind contributions. The cost estimates and financing plan are in Appendix 2.

#### **D. Implementation Arrangements**

18. The Ministry of Water and Power will be the executing agency, and the CPPA will be the implementing agency. TA administration will not be delegated to the executing or implementing agency, but will instead be done by the Energy Division, Central and West Asia Department. Disbursements under the TA will be done in accordance with the ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time).

19. The TA project will be implemented over 18 months, from February 2015 to July 2016. An international firm of consultants (or consortium) will be recruited in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time) using quality-based selection and a full technical proposal. The quality-based selection method is required because the TA project is complex and highly specialized, and the quality of the services is of overriding importance for the outcome of the TA project. The firm will provide four international consultants (23 person-months) and five national consultants (45 person-months). The consultants will consist of a settlements expert, a power sector expert, legal experts, information technology experts, accounting and finance experts, and a human resources expert. Outline terms of reference for the consultants are in Appendix 3.

20. A communication and stakeholder management plan will be prepared by the consultants during the initial stages of the TA to facilitate the participation of stakeholders and dissemination of knowledge.

#### **IV. THE PRESIDENT'S DECISION**

21. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$1,500,000 on a grant basis to the Government of Pakistan for Strengthening the Central Power Purchasing Agency, and hereby reports this action to the Board.



## DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<b>Impact</b> Improved financial management and governance in Pakistan's power sector	Market pricing publicly available for every trading period hour by 2020 (2014 baseline: no market pricing available)	CPPA annual reports Settlements website	<b>Assumptions</b> Continued government commitment to restructuring the sector  Timely government financial support for sector for as long as required  <b>Risk</b> Political pressures delay or prevent tariff reforms
<b>Outcome</b> CPPA operates an autonomous and transparent electricity settlement system in Pakistan	CPPA successfully completes market settlements in line with established settlements process and timetable by 31 July 2016 (2014 baseline: no settlements completed by an independent CPPA)	Issuance of notification from Securities and Exchange Commission of Pakistan for the commencement of business  Settlements website	<b>Assumptions</b> The parallel required government actions are completed in a timely manner  Continued sector participant commitment to restructuring the sector
<b>Outputs</b> 1. CPPA road map for establishment and operationalization prepared	CPPA establishment and operationalization road map accepted by CPPA's board of directors by June 2015	CPPA board minutes	<b>Assumption</b> Concurrent works on the market rule guidelines and market rules being completed by the United States Agency for International
2. CPPA management and organizational structure established	CPPA's management and organization structure accepted by the board of directors by October 2015	CPPA board minutes	Development are completed satisfactorily within the targeted time frame
3. CPPA's initial information and technology system plan prepared	CPPA initial IT system plan accepted by the board of directors by October 2015	CPPA board minutes	<b>Risk</b> The security situation within the country deteriorates, delaying consultants and/or counterpart resources
4. Standard market agreements drafted	Standard market agreements accepted by the board of directors by January 2016	CPPA board minutes	
5. Internal and external training manuals and activities completed	100% of management and 90% of staff completed training by April 2016	CPPA annual report	

Activities with Milestones	Inputs
<p><b>1. Preparation and operationalization of CPPA road map</b> (April 2014)</p> <p>1.1. A complete gap analysis between the current status of establishment and operationalization and a fully operational CPPA (Mar 2014)</p> <p>1.2. A detailed action list, including timelines, resources, and responsibilities required to fill all gaps identified (Mar 2014)</p> <p>1.3. An initial internal budget required to establish the CPPA in its initial years of operations and complete the road map (Apr 2014)</p> <p>1.4. A review and summary of the legal status of the CPPA and required supporting regulations and statutes to ensure the CPPA is correctly established and empowered to complete the required functions (Apr 2014)</p> <p>1.5. A capital structure plan (Apr 2014)</p> <p>1.6. Prepare and implement a stakeholder management and communication plan (Apr 2014)</p> <p><b>2. Establishment of CPPA management and organizational structure reflecting international governance standards</b> (Aug 2015)</p> <p>2.1. Define and document the CPPA functions and organization (Jul 2015).</p> <p>2.2. Assist and prepare detailed internal operating policies and procedures (Jul 2015).</p> <p><b>3. Preparation of CPPA's initial information and technology system plan</b> (Aug 2015)</p> <p>3.1. Detailed IT system and software recommendation required to establish a fully functioning CPPA, including the appropriate architecture, functionality, rollout and installation strategy, data management system and inter-operability requirements (Aug 2015)</p> <p><b>4. Drafting of standard market agreements</b> (Nov 2015)</p> <p>4.1. Review completed standard market agreements and provide recommendations for integration into initial settlement functions of the CPPA, and provide recommendations to be incorporated into any future standard market agreements (Nov 2015).</p> <p>4.2. Review draft standard market agreements and provide recommendations to be incorporated into the final documentation to ensure they can be successfully integrated into initial settlement and forecasting functions of the CPPA (Nov 2015).</p> <p><b>5. Completion of internal and external training manuals and activities</b> (Apr 2016)</p> <p>5.1. Develop and deliver a formal training program for CPPA management, staff, industry stakeholders, and the public and other stakeholders, including market rules, procedures and processes, IT, and new software (Apr 2016).</p>	<p><b>ADB: \$1,500,000</b></p> <p>Note: The government will provide counterpart support in the form of office space and equipment; counterpart staff and technical support; communication facilities; access to data and other relevant information; organizational support related to workshops, training, and meetings to assist the consultants during implementation; and other in-kind contributions.</p>

ADB = Asian Development Bank, CPPA = Central Power Purchasing Agency, IT = information technology.

Source: Asian Development Bank.

**COST ESTIMATES AND FINANCING PLAN**

(\$'000)

<b>Item</b>	<b>Amount</b>
<b>Asian Development Bank<sup>a</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	956.2
ii. National consultants	290.4
b. International and local travel	54.4
2. Training, seminars, and conferences	70.0
3. Miscellaneous administration and support costs <sup>b</sup>	20.0
4. Contingencies	109.0
<b>Total</b>	<b>1,500.0</b>

Note: The technical assistance (TA) is estimated to cost \$1,700,000, of which contributions from the Asian Development Bank are presented in the table above. The government will provide counterpart support in the form of office space and equipment; counterpart staff and technical support; communication facilities; access to data and other relevant information; organizational support related to workshops, trainings, and meetings to assist the consultants during implementation; and other in-kind contributions. The value of government contribution is estimated to account for 11.8% of the total TA cost.

<sup>a</sup> Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-V).

<sup>b</sup> Allowance for additional support to document processes and procedures.

Source: Asian Development Bank estimates.

## OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. The scope of the central power purchasing agency (CPPA) is currently set out in the license for the National Transmission and Despatch Company (NTDC). The Government of Pakistan has determined that the CPPA will become an autonomous entity responsible for electricity market settlements. The objective of this technical assistance (TA) project is to support and enable the CPPA's establishment and commencement of operations.

2. The primary role of the consultants is to provide management support, capacity building, access to expert resources, and training for the CPPA management team and employees. This will be done principally by embedding the required international and national staff in the CPPA in advisory and supporting roles. Some expert resources may be provided on an ad hoc basis, as required, to deliver the required services.

### A. Proposed Consultants

3. An international consulting firm (or consortium) will provide a team of international and national consultants to deliver the scope of work. The international consultants must have in-depth experience in power sector settlement systems and power trading regulations. The local experts must have substantial experience in the power sector, including the technical, commercial, legal, and regulatory issues influencing the sector. During the estimated 18-month duration of the TA project, 23 person-months of international consulting services and 45 person-months of national consulting services are envisaged. For the TA project to be effective, the consultants will be an integral part of the CPPA, primarily based in Islamabad, during the establishment and commencement of operations.

4. **Settlements expert and team leader** (international, 15 person-months). The settlements expert will preferably have a degree and postgraduate qualification in economics, finance, engineering, or law, and at least 15 years of experience, including at least 5 years in the management of autonomous power sector settlement companies, preferably with experience in the establishment of power sector settlement companies.

5. The expert will provide the international settlement company knowledge, experience, and inputs required to support senior management in establishing and operationalizing the CPPA, and will successfully complete the tasks and reporting requirements identified in these terms of reference, including (i) ongoing embedded management advice and support to the CPPA management team; and (ii) drafting and review of appropriate sections of the road map, internal budget, legal and regulatory framework review, CPPA functions and organization structure, standard market agreements, information technology system, training and capacity development plan, stakeholder management and communication plan, monthly progress reports, and final report. As team leader, the expert will also be responsible for managing and coordinating the required inputs of the team and the overall successful delivery of tasks.

6. **Power sector expert** (national, 15 person-months). The power sector expert will preferably have a degree and postgraduate qualification in economics, finance, engineering, or law; a minimum of 15 years of work experience in the power sector, including in-depth knowledge of the local power sector; and preferably hands-on experience in economic and technical regulation in the local power sector.

7. The expert will provide the local power industry knowledge, experience, and inputs required to support the settlements expert and, in turn, CPPA senior management in establishing and operationalizing the CPPA, including (i) ongoing embedded sector advice and

support to the CPPA management team; and (ii) drafting and review of appropriate sections of the road map, internal budget, legal, and regulatory framework review, CPPA functions and organization structure, standard market agreements, information technology (IT) system, training and capacity development plan, stakeholder management and communication plan, monthly progress reports, and final report.

8. **Legal expert** (international, 2 person-months). The legal expert will preferably have a law degree and postgraduate qualification in law, economics, or finance; a minimum of 12 years of international work experience in the power sector, including experience with the regulatory framework affecting the settlement function and associated contractual relationships; and preferably experience in the region.

9. The consultant will (i) review and draft appropriate sections of the road map, legal and regulatory framework review, CPPA functions and organization structure, standard market agreements, and final report; and (ii) provide legal advice and support to the settlements expert, national legal expert, and CPPA management team.

10. **Legal expert** (national, 6 person-months). The legal expert will preferably have a law degree and postgraduate qualification in law, economics or finance, a minimum of 10 years of work experience including local power sector policy and regulatory framework, and preferably with an understanding of market settlement processes such as stock exchange settlements.

11. The national legal expert will work with the international legal expert to complete the scope of work outlined in para. 9.

12. **Information technology expert** (international, 3 person-months). The IT expert will preferably have an IT degree and postgraduate qualification in IT, systems engineering, or a similar discipline; a minimum of 10 years of work experience including complex data collection and processing systems; and preferably an understanding of market settlement processes such as stock exchange settlements.

13. The expert will provide the IT input and broad system architecture experience, including (i) preparation of IT systems report, and drafting and review off appropriate sections of the road map, training and capacity development plan, monthly progress reports, and final report; and (ii) provision of IT advice and support to the settlements expert, power sector expert, and CPPA management team.

14. **Information technology expert** (national, 6 person-months). The IT expert will preferably have an IT degree and postgraduate qualification in IT, systems engineering, or a similar discipline, and a minimum of 10 years of work experience including complex data collection and processing systems.

15. The national IT expert will work with the international IT expert to complete their required scope of work identified in para. 13.

16. **Accounting and finance expert** (international, 3 person-months). The international accounting and finance expert will preferably have a degree and postgraduate qualification in economics, finance, or business and a minimum of 10 years of international work experience including complex accounting systems; and should be a certified chartered accountant or equivalent, preferably with an understanding of market settlement processes such as stock exchange settlements.

17. The expert will provide the international accounting and finance input and experience, including (i) drafting and reviewing appropriate sections of the road map, internal budget, legal and regulatory framework review, CPPA functions and organization structure, standard market agreements, IT system, training and capacity development plan, stakeholder management and communication plan, monthly progress reports, and final report; and (ii) providing accounting and finance advice and support to the settlements expert, power sector expert, and CPPA management team.

18. **Accounting and finance expert** (national, 15 person-months). The accounting and finance expert will preferably have a degree and postgraduate qualification in economics, finance, or business, a minimum of 10 years of work experience including complex accounting systems, and will be a certified chartered accountant or equivalent with an understanding of market settlement processes such as stock exchange settlements.

19. The national accounting and finance expert will provide the national accounting and finance input and experience required to assist the international accounting and finance expert to complete the scope of works outlined in para. 17.

20. **Human resources expert** (national, 3 person-months). The human resources expert will preferably have a degree and postgraduate qualification in business, law, or human resources, a minimum of 10 years of work experience including establishing new businesses, and an understanding of market settlement processes such as stock exchange settlements.

21. The expert will provide the national human resource input and experience, including (i) drafting and review of appropriate sections of the road map, internal budget, CPPA functions and organization structure, training and capacity development plan, stakeholder management and communication plan, monthly progress reports, and final report; and (ii) providing advice and support to the settlements expert, power sector expert, and CPPA management team.

## **B. Reporting Requirements and Expected Outputs**

22. The consultants will report to the principal energy expert, ADB. The following reports will be prepared and provided by the consultants.

### **1. Central Power Purchasing Agency Establishment and Operation Preparedness Road Map**

- (i) A complete gap analysis between the current CPPA establishment and operational preparedness and the works required to develop a fully operational CPPA, including the items required to achieve this terms of reference and all administrative items required to establish a fully functioning CPPA.
- (ii) A detailed action list, including timelines, resources, and responsibilities required to fill all gaps identified. This list may be augmented as the TA progresses.
- (iii) A detailed CPPA establishment and initial operations timeline (Gantt chart), including identification of all critical path activities.
- (iv) An initial internal budget required to establish the CPPA in its initial years of operation and complete the road map.
- (v) Monitor and report on the progress of the action list and provide an updated Gantt chart in the monthly report.<sup>1</sup>

<sup>1</sup> Mercados. Present Situation and Way Forward. Unpublished.

**2. A Capital Structure Plan**

- (i) Help the CPPA develop and document a detailed capital structure plan.

**3. Legal and Regulatory Framework Review Report and Monitoring Report**

- (i) A review and summary of the legal status of the CPPA and required supporting regulations and statutes to ensure the CPPA is correctly established and empowered to complete the required functions.
- (ii) Recommendation of changes required to ensure the CPPA has the legal status and supporting rules and regulations required to enable it to complete its functions. This will include a review of the market rules, and the regulation of the CPPA as an independent and autonomous company responsible for settlement, to ensure that its operations and the operations of all other participants are complete and appropriate.
- (iii) Report on the progress of any required changes in the monthly report.<sup>2</sup>

**4. Central Power Purchasing Agency Functions and Organization Structure**

- (i) Help the CPPA define and document the CPPA functions and organization, in consultation with the National Electric Power Regulatory Authority and the NTDC.
- (ii) Help the CPPA prepare detailed internal operating policies and procedures.
- (iii) Monitor and report on the progress of the definition, documentation, and implementation of the CPPA functions and organization in the monthly report.<sup>3</sup>

**5. Standard Market Agreements**

- (i) Review completed standard market agreements, including power purchase agreements and sales agreements with distribution companies, provide recommendations for integration into initial settlement and forecasting functions of the CPPA, and provide recommendations to be incorporated into any future standard market agreements.
- (ii) Review draft standard market agreements, including power purchase agreements and sales agreements with distribution companies, and provide recommendations to be incorporated into the final documentation to ensure they can be successfully integrated into initial settlement and forecasting functions of the CPPA.
- (iii) Report on the progress of the drafting, appropriateness, and completion of the standard market agreements as part of the monthly report.

**6. Information Technology System Plan**

- (i) A detailed IT system and software recommendation required to establish a fully functioning CPPA capable of supporting and facilitating the requirements of the road map within the agreed time frame outlined in item 1, including the appropriate architecture, functionality, rollout, and installation strategy, data management system, and inter-operability

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<sup>2</sup> Mercados. NTDC License Amendment. Unpublished.

<sup>3</sup> Mercados. Functions and Organization of Central Power Purchasing Agency. Unpublished.

requirements. (Note: This activity will include consultation with the National Electric Power Regulatory Authority and the CPPA. No purchases are required as part of these terms of reference).

- (ii) Report IT system design and implementation progress in the monthly report.<sup>4</sup>

#### **7. Training and Capacity Development Plan**

- (i) Develop and deliver a formal training program for CPPA management, staff, industry stakeholders, and the public and other stakeholders, including market rules, procedures and processes, IT, and new software.
- (ii) Report on the progress of the training program in the monthly report.

#### **8. Stakeholder Management and Communication Plan**

- (i) Prepare and implement a stakeholder management and communication plan to facilitate the establishment and operationalization of the CPPA. The plan will incorporate the ministries and institutional stakeholders, broader industry groups, and the public.

#### **9. Monthly Progress Report**

- (i) Prepare a template for the monthly progress report incorporating an update on the overall progress of the establishment and operations of the CPPA.
- (ii) Provide monthly progress reports 1 week after month end.

#### **10. Final Report**

- (i) Prepare a final report, including a summary of the works completed and works outstanding to establish a fully functioning autonomous CPPA, and an analysis of the effectiveness and efficiency of the TA and lessons.

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<sup>4</sup> Mercados. IT Requirements Specification for the Central Power Purchasing Agency. Unpublished.