

# Environmental Monitoring Report

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Semestral Report: January-June 2021  
August 2021

## Tajikistan: Wholesale Metering and Transmission Reinforcement Project

Prepared by the State Establishment «Project Management Unit for Electro-Energy Sector» (SE «PMUES») with support of Mercados Aries International - Project Implementation Consultant for the Executing Agency Open Stock Holding Company «Barqi Tojik» (BT) and the Asian Development Bank.

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## Abbreviations

ADB	Asian Development Bank
BT	Barqi Tojik
CEMMP	Contractor's Environmental, Health and Safety Management and Monitoring Plan
CT	Current Transformer
EHS	Environmental, Health & Safety
EMP	Environmental Management Plan
ESMP	Environmental and Social Management Plan
IEE	Initial Environmental Examination
kV	Kilovolt
MVA	Megavolt Ampere (unit used to measure apparent power)
OHTL	Overhead Transmission Line
PIC	Project Implementation Consultant
PMU	Project Management Unit
PPE	Personal Protective Equipment
RoW	Right-of-Way
SS	Substation
SEMP	Specific Environmental Management Plan
SAEMR	Semi - Annual Environmental Monitoring Review
SSEMP	Site-specific Environmental Management Plan
TL	Transmission Line
VT	Voltage Transformer

# **1 INTRODUCTION**

## **1.1 Preamble**

1. This report represents the Semi - Annual Environmental Monitoring Review (SAEMR) for the Wholesale Metering and Transmission Reinforcement Project. No Semi - Annual Social Monitoring Review has been prepared for the current reporting period since there are no relevant social impacts associated to Package 4.
2. This report is the 11<sup>th</sup> EMR for the project for the January-June 2021 reporting period.
3. The Project has been extended until March 2022 after the incorporation of Package 4.

## **1.2 Headline Information**

4. In Lot 1 on Wholesale Metering System, the meters Factory Acceptance Test was conducted successfully in July 2018 by the Contractor Huawei/ TBEA. The Contractor has selected the subcontractor Cuculus GmbH for the software part. A problem with the firmware of the meters has been detected, so the testing of the firmware supposed to be repeated along with the meters' firmware update at the substations. Firmware activities are still ongoing. 100% of the meters in the substations have been installed as of end of December 2020. The construction of the foundations and erection of the Current and Voltage Transformers inside the substations was completed by September 2019.
5. Regarding the Amendment 2 of Lot 2's work, which includes the renovation of 110 kV switchyard at Rudaki Substation, it started in April 2018. Every activity was developed inside the plot of the Substation and on a working installation. TBEA completed the construction of OHL in October 2018. Renovation of SS Rudaki and extension of SS Ayni were completed in March 2019.
6. Package 4. The objective of the additional subproject is to enhance the system enabling it to control the fluxes of energy in the Transmission Grid item by item from higher to lower levels, meaning all the items, lines, power transformers and busbars in the levels of voltage 500, 220, 110 and 35 kV. The objective is increasing redundancy of measurements on the top levels and full control of losses. Besides, it can provide relevant information of fluxes of energy between different segments of the grid. Package 4 activities are executed inside the substations which are already owned by Barqi Tojik and are located geographically around the country at the substations in the Khatlon region (Vakhsh, Yavan, Kulyab and Nurek districts), Sughd region (Isfara, Istarafshan, Khujand, Penjakent) and the Regions of the Republican Subordination (Rasht and Varzob districts). The environmental assessment was carried out and environmental safeguards DDR was approved on 31 March 2020, concluding that the implementation of this sub-project will have limited potential environmental impacts that will have to be mitigated through the implementation of the revised site-specific Environmental and Social Management Plan (SSEMP) and the topic-focused procedures and management plans to be developed by the Contractor. Package 4 was awarded in December 2020 to the JV TGEM-SANXING and it is scheduled to be completed by 31 March 2022. The Contractor's Environmental, Health and Safety Plan for Package 4 is in place since 26 April 2021 after four rounds of revisions performed by the Project Implementation Consultant.

## 2 PROJECT DESCRIPTION AND CURRENT ACTIVITIES

### 2.1 Project Description

7. The Republic of Tajikistan has received a grant from the Asian Development Bank (ADB) towards the cost of the Wholesale Metering and Transmission Reinforcement Project. It is expected that the proposed project will improve electricity supply to households and industries in the country by reducing losses through metering entire high and medium voltage transmission grid and expand transmission capacity in Panjakent region that used to suffer from load shedding.
8. Parts of this financing are being used for payments under the contract for: **Lot 1)** Installation of 1,682 wholesale meters and settlement system including 846 current transformers and 744 voltage transformers in most of the substations along the country, introduction of an advanced metering infrastructure, and introduction of a settlement system; **Lot 2)** Rehabilitation of Substation Rudaki, Extension of Substation Ayni and Construction of new 220 kV Over Head Transmission Line (OHTL) between Substation (SS)Ayni 220 kV and SS Rudaki, approximately 95 km of new single circuit single conductor with rated capacity of 320 MVA; and **Package 4)** Replacement or installation of 448 smart meters and 121 metering panels in 175 substations, replacement or installation of 300 current transformers (CTs), 105 voltage transformers (VTs) and 196 arresters, installation of modems/data concentrators in the substations, installation of meter cabinets, overvoltage limiters and other minor equipment, communication equipment installation, testing, commissioning and training.
9. The location of the Lot 2 Project component is presented below in Figure 1 in the scale of the country.



Figure 1. Location of the Project (Lot 2)

10. The location of the Project component Package 4 is presented below in Figure 2.

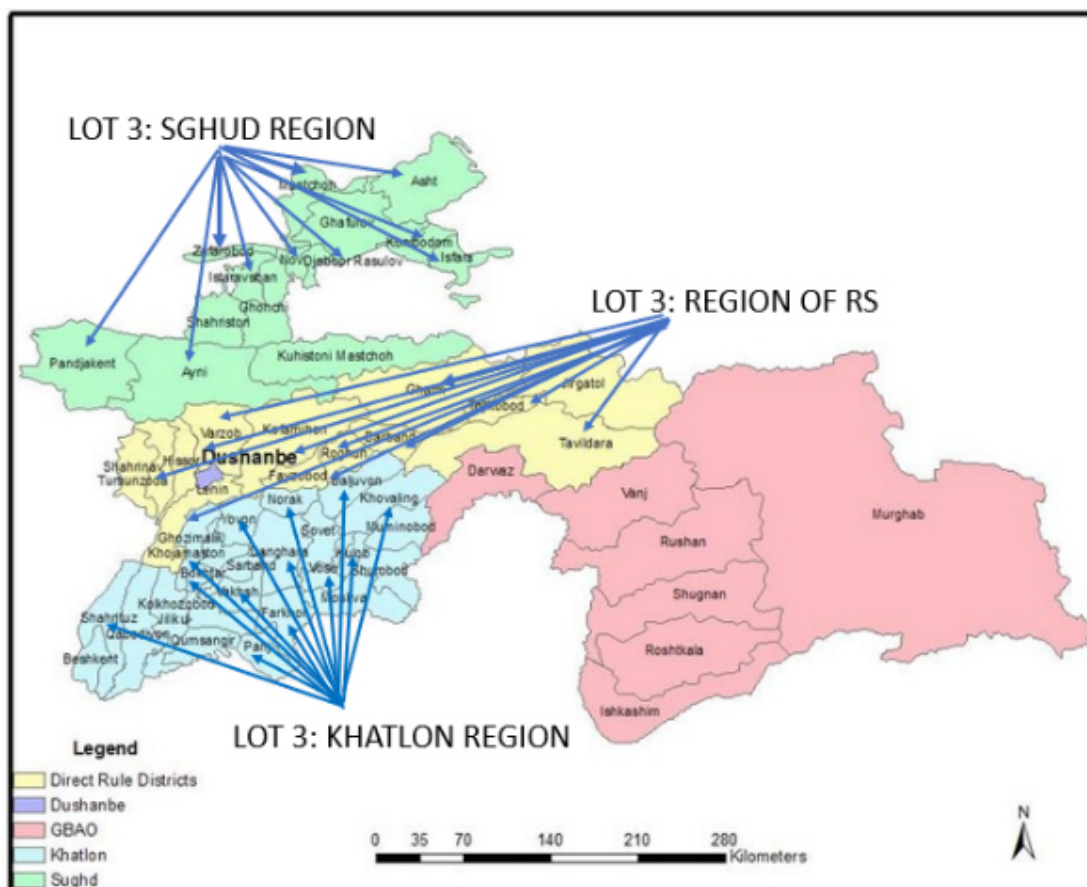


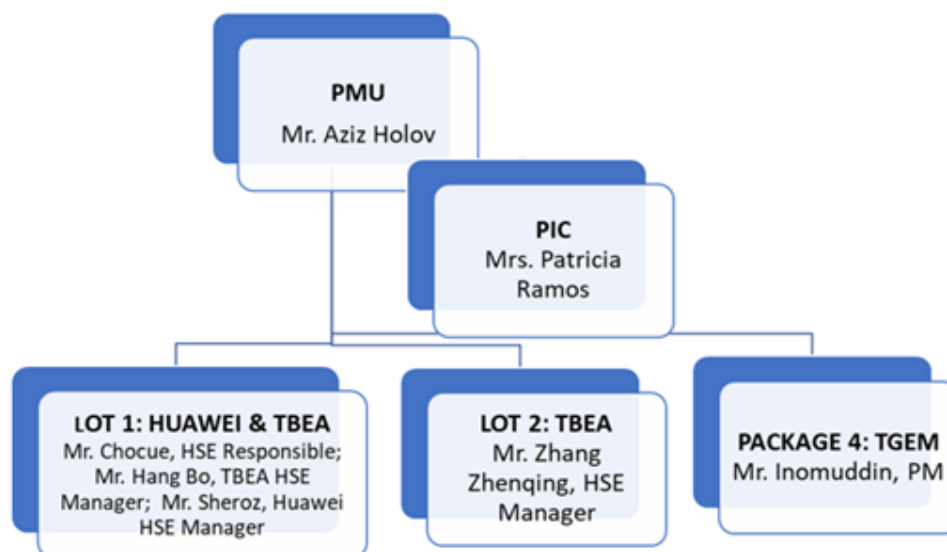
Figure 2. Location (through arrows) of the SSs in the scope of Package 4 activities.

## 2.2 Project Contracts and Management

11. The Executing Agency for the Project is the public Open Stock Holding Company Barqi Tojik. The Executing Agency has set up a Project Management Unit (PMU) to manage daily coordination, implementation, monitoring and administration activities of the Project.
12. The PMU includes the Projects Monitoring Department whose responsibilities include, among other things, the management of all social and environmental aspects of the project. The newly appointed Head of the Environment of the Projects Monitoring Department is Mr. Aziz Holov.
13. The Project Implementation Consultant (Mercados-Aries International, formerly AF-Mercados) is providing technical assistance to the PMU in the management and reporting of the project. The PIC is responsible for supervising and reporting on the Contractor's performance in the implementation of the environmental safeguards. The contract with Mercados-Aries International was signed on August 2015 and the current closing date is February 2022.
14. The PIC's international environmental safeguards specialist was Mr. Pasi Vahanne and the national environmental safeguards specialist was Ms. Muazama Burkhanova until July 2018. Afterwards, the position was taken by the international safeguards specialist Mrs.

Patricia Ramos Peinado. Given that Mrs. Ramos could not travel to Tajikistan during the period January-June 2020 due to the COVID-19 pandemic, the national environmental and social specialist, Isaev Davron took care of the field visits to the Lot 1 substations during 2020 and Patricia Ramos did the reporting. No national environmental consultant hired by PIC for Package 4 works. Currently only international consultant of PIC is in place.

15. The EHS management of the project for the reporting period 2021 S1 is as shown in the updated Figure 3.



*Figure 3. Safeguards management of the project for 2021 S1 (Project Management Unit - PMU, Project Implementation Consultant – PIC, Health & Safety, Social and Environmental, Project Manager-PMHSE.)*

16. The contractors for Lot 1 are Huawei & TBEA. The contract was signed on 6 December 2016 and the original completion date was July 4, 2019. The contract was extended until 1 March 2020. The Contractor has requested a contract extension of 5 months due to the period that the implementation has been on-hold due to the COVID-19 pandemic (from 13 April to end July 2020). The contractor for Lot 2 is TBEA and the contract was signed on 28 December 2015 and its end date as stated in the amendment 4 of the contract is 31 December 2019. The contract was extended until 1 March 2020. Package 4 was awarded in December 2020 to the JV TGEM-SANXING and it is scheduled to be completed by 31 March 2022. 31 March 2022 is the planned closing date of the project.
17. Summary of civil works contracts and works' progress is summarized in Table 1. All awarded contracts included EMPs cleared by ADB and any conditions of applicable national EIA/IEE clearance.

Table 1: Summary of Civil Works Contracts and works' progress

Package	Scope	Contractor	Signed	Approval Date			Environmental personnel		Civil Work		(%) Progress as of	
				SSEMP	COVID-19 HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	31 Dec 2020	30 Jun 2021
Package 4:	Construction of foundations	TGEM-SANXING	12/20	26/04/21	26/04/21	26/04/21	Mr. Inomuddin	Mr. Inomuddin	Q3 2021	Q1 2022	0%-	0%-
Package 4:	Installation of equipment	TGEM-SANXING	12/20	26/04/21	26/04/21	26/04/21	Mr. Inomuddin	Mr. Inomuddin	Q3 2021	Q1 2022	0%	0%

Note: The Month/Years in brackets are planned schedule.

COVID-19 HSMP = COVID-19 Health and Safety Management Plan, ERP = Emergency Response Plan, SSEMP = site-specific environmental management plan

18. The names of the main parties and focal points involved in the project can be found in Annex I together with their contact details.
19. The contracts are being managed by the Project Management Unit of the power utility Barqi Tojik with the support of the consultancy company Mercados-Aries International in the role of Project Implementation Consultant.

## **2.3 Project Activities During Current Reporting Period**

20. Construction activities for the Lot 2 and Lot 1 physical works were fully completed in previous periods. Construction activities for Package 4 has not started yet. Preliminary activities were performed for Package 4 during the period: geologic and topographic survey of some substations, design of electrical solutions, some construction drawings.
21. In Lot 1 on Wholesale Metering System, the meters Factory Acceptance Test was conducted successfully in July 2018 by the Contractor Huawei/ TBEA. The Contractor has selected the subcontractor Cuculus GmbH for the software part. A problem with the firmware of the meters has been detected, so the testing of the firmware will have to be repeated and the firmware at the meters in the substations will have to be updated. The firmware testing and adjusting activities are still ongoing. The construction of the foundations and erection of the Current Transformers (for commercial metering points in 110 kV, 35 kV, 10 kV and 6 kV systems) and Voltage Transformers (for commercial metering points in 110 kV, 35 kV, 10kV, 6kV and 0.4 kV) inside the substations was completed by September 2019. Meter deployment in all the substations located along the country has been completed by December 2020.
22. The project activities for Lot 2 are the reinforcement of the transmission grid in the Panjakent area, through the construction of a 220 kV Over Head Transmission Line (OHTL) between Ainy and Rudaki Substations, the enhancement and renovation of Rudaki SS, and the construction of a new bay in Ainy SS. The Contractor TBEA completed the works on 25 January 2018 for the original scope. Regarding the Amendment 2 of Lot 2 work, which is the renovation of 110 kV switchyard at Rudaki Substation, it started in April 2018. Every activity was developed inside the plot of the Substation and on a working installation. TBEA completed most of the works for the variation order on 13 September 2018.
23. The objective of Package 4 is to enhance the system enabling it to control the fluxes of energy in the Transmission Grid item by item from higher to lower levels, meaning all the items, lines, power transformers and busbars in the levels of voltage 500, 220, 110 and 35 kV. The objective is increasing redundancy of measurements on the top levels and full control of losses. Besides, it can provide relevant information of fluxes of energy between different segments of the grid. Package 4 activities are executed inside the substations which are already owned by Barqi Tojik and are located geographically around the country at the substations in the Khatlon region, Sughd region and the Regions of the Republican Subordination. Package 4 was awarded in December 2020 to the JV TGEM-SANXING and it is scheduled to be completed by 31 March 2022. The construction activities have not yet started and preliminary activities such as topographical and geologic surveys at the substations and detail design are taking place.

## **2.4 Description of Any Changes to Project Design**

24. No changes to project design done within January-June 2021.
25. Package 4 activities were added to the project scope in June 2020. The objective of the additional subproject is to enhance the system enabling it to control the fluxes of energy in the Transmission Grid item by item from higher to lower levels, meaning all the items, lines, power transformers and busbars in the levels of voltage 500, 220, 110 and 35 kV. The objective is increasing redundancy of measurements on the top levels and full control of losses. Besides, it can provide relevant information of fluxes of energy between different segments of the grid. Specifically, Package 4 involves the replacement or installation of 448 smart meters and 121 metering panels in 175 substations, replacement or installation of 300 current transformers (CTs), 105 voltage transformers (VTs) and 196 arresters, installation of modems/data concentrators in the substations, installation of meter cabinets, overvoltage limiters and other minor equipment, communication equipment installation, testing, commissioning and training. Package 4 activities are executed inside the substations which are already owned by Barqi Tojik and are located geographically around the country at the substations in the Khatlon region, Sughd region and the Regions of the Republican Subordination. The Initial Environmental Examination (IEE) for the whole Project was updated in August 2020 to incorporate the Package 4 activities and cleared/disclosed by ADB<sup>1</sup>.

## **2.5 Description of Any Changes to Agreed Construction Methods**

26. No changes were done during reporting period.

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<sup>1</sup> <https://www.adb.org/projects/documents/taj-47017-003-iee>

### 3 ENVIRONMENTAL SAFEGUARD ACTIVITIES

#### 3.1 General Description of Environmental Safeguard Activities

27. No complaints were received, and no accidents or incidents happened during the reporting period, as per information received from the PMU and the Package 4 Contractor. The SSEMPs are being generally implemented.
28. Activities carried out by International environmental consultant of Supervision Consultant during the monitoring period is provided in Table 2 below. There is no national environmental consultant hired for Package 4 by MAI

Table 2: Environmental Safeguards Activities Carried out During Reporting Period (January - June 2021)

Environmental Safeguard Activities
<b>The International environmental expert (Mrs. Patricia Ramos) of Supervision Consultant (MAI)</b> <ul style="list-style-type: none"> <li>- Review the Package 4 Contractor's Environmental, Health and Safety Plan and provide suggestions for its strengthening.</li> <li>- Coordination meeting with the PMU to follow-up on the status of the Environmental and Social Management System for Package 4.</li> <li>- Interaction with the Contractor to assess the level of implementation of the SSEMP.</li> <li>- Drafting the SAEMR.</li> </ul>

#### 3.2 Site Inspections

29. No site visits were implemented by the International Safeguards specialist of the PIC within January-June 2021 since there were no construction activities being implemented. Follow-up on the non-conformities was carried out by the PMUES as well as the PIC.
30. The information on the audits undertaken during January-June 2021 can be found on the Table 3 below.

**Table 3. Audits undertaken during the current period.**

Organization	Date of Visit and Place	Auditors Name	Purpose of Audit	Significant Findings
PMU	23/04/2021	Mr. Aziz Kholov, Head of the Environment of the Projects Monitoring Department	Check the status of implementation of corrective measures for Lot 1	Compacting and gravelling done in the Akademgorodok, Vostochnaya, Shurob, Vakhdat and

Organization	Date of Visit and Place	Auditors Name	Purpose of Audit	Significant Findings
				Vinzavodskaya (Galaba) substations in order to reinstate the area around the poles of installed CTs and VTs. Pictures can be found in Annex 2.

31. This is the summary of the findings of the inspections undertaken in the current period:

**Table 4. Summary of the findings.**

Main finding	Corrective actions applied or needed	Status
Compacting and gravelling done in the Akademgorodok, Vostochnaya, Shurob, Vakhdat and Vinzavodskaya (Galaba) substations in order to reinstate the area around the poles of installed CTs and VTs.	N.A.	Fully completed.

### 3.3 Issues Tracking (Based on Non-Conformance Notices)

32. The status of the EHS issues is presented in Table 5 below.

**Table 5. Environmental issues tracking**

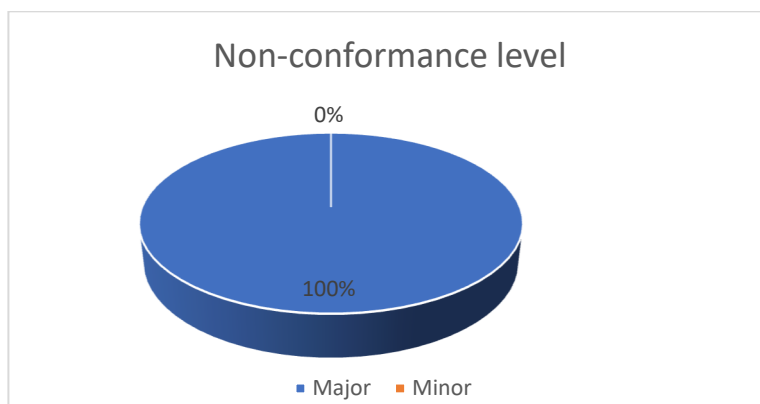
Date of the SAEMR	Non-conformity	Corrective actions applied or needed	Status
2019 S2, 2020 S1, 2020 S2	Lot 1 (Akademgorodok, Vostochnaya and Shursay Substations) Mayor: Reinstatement of the area around the poles of installed CTs and VTs was not done yet, no compacting and gravelling done.	Compacting and gravelling has to be done in the substations in order to reinstate the area around the poles of installed CTs and VTs.	Done by March 2021 (see Photos in Annex 2)
2021 S1	Package 4 Contractor to confirm if the 3 planned EHS Managers (one for each main region) as per the SSEMP are already working in the Project.	Clarification to be submitted to the PMU and the PIC.	Pending.
2021 S1	In relation to Package 4, regarding the terms of	A detailed disconnection schedule has to be	Pending.

Date of the SAEMR	Non-conformity	Corrective actions applied or needed	Status
	provision of disconnection (which may mean short blackouts for the utility customers), there is a lack of planning. The Barqi Tojik customers have not been informed on it yet.	submitted by the Contractor. After being accepted by Barqi Tojik, it has to be communicated to the customers (radio programs, notices at bills payment kiosks, notices at Barqi Tojik regional offices and other suitable communication actions).	

33. Summary of Issues Tracking Activity for current period.

**Table 6. Summary of Environmental and H&S Issues Tracking Activity for Current Period**

<b>Total Number of Issues for Project</b>	3
<b>Number of Open Issues or issues with unknown status</b>	2
<b>Number of Closed Issues</b>	1
<b>Percentage Closed</b>	33%
<b>Issues Opened this Reporting Period</b>	2
<b>Issues Closed this Reporting Period</b>	1



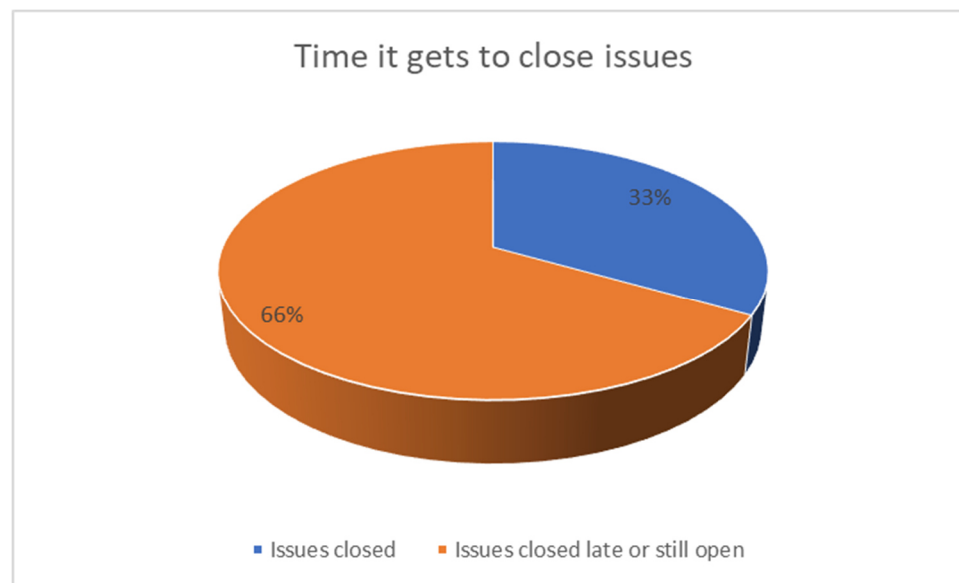
**Figure 8. Summary of issues by non-conformance level for by June 2021.**

### 3.4 Trends

34. The trends from previous periods reports and the current period information are shown in Table 7.

**Table 7. Trends on % of closed issues and % of issues closed late.**

Semi-Annual Report No.	Total No. of Issues	% Issues Closed	% Issues Closed Late or still open
10	3	33	66
9	10	40	60
8	7	14	86 (Note: no monitoring site visits could be performed due to COVID-19)
7	9	22	78
6	8	12	88
5	6	50	50
4	11	100	0
3	10	70	30
2	13	85	15
1	12	92	8



**Figure 9. Summary of issues by time it gets to close them in the current semi-annual report.**

35. The number of issues has dropped greatly since Lot 1 and Lot 2 are closed now and the civil works for Package 4 have not started yet.

### **3.5 Unanticipated Environmental Impacts or Risks**

- 36. During the reporting period, COVID-19 is viewed as an unanticipated impact and risk to the community and workers.
- 37. The Contractor of the Package 4 developed an Occupational Health and Safety Plan as part of its SSEMP which includes, *inter alia*, corresponding measures on prevention of the spread of COVID-19. The Contractor's SSEMP also includes an Emergency Management Plan.

## **4. RESULTS OF ENVIRONMENTAL MONITORING**

### **4.1 Overview of Monitoring Conducted during Current Period**

- 38. Environmental Monitoring typically consists of two kinds of activities; visual inspections and inspections at the construction sites, and measurements to gain numerical data. Environmental Monitoring Lot 1 and Lot 2 of the Wholesale Metering and Transmission Reinforcement Project is based on the IEE and ESMP attached to it, as well as on Contractor's Environmental Monitoring Plan.
  - a. Air Quality. In accordance with EMP/SSEMP no instrumental measurement of air quality is foreseen, only visual observations. Probe of the maintenance of Package 4 vehicles has been requested. No other emissions observed/recorded.
  - b. Water Quality. In accordance with EMP/SSEMP no instrumental measurement of water quality is foreseen, only visual observations.
  - c. Noise. All activities during the reporting period were conducted inside the SS and they did not involve construction works. Therefore, there was no need to measure the noise level.
  - d. Flora and fauna. All works during the reporting period were conducted inside the SS. No illegal pouching or cutting of trees were recorded.

### **4.2 Trends**

- 39. Non-applicable.

### 4.3 Summary of Monitoring Outcomes

40. Status of compliance with environmental safeguards related covenants in the Project's Grant Agreement<sup>2</sup> signed between Republic of Tajikistan and ADB on 27 January 2015 is summarized in Table 8 below.

**Table 8: Grant Agreement Compliance Status**

Schedule	Paragraph	Covenant	Compliance Status
3	5	<u>Conditions for Award of Contract</u> The Recipient shall not award any Works contract which involves environmental impacts until: (a) the IEE has been approved by the appropriate authority of the Recipient; and (b) the Recipient has incorporated the relevant provisions from the EMP into the Works contract.	Being complied with.
3	6	<u>Conditions for Award of Contract</u> The Recipient shall not award any Works contract which involves involuntary resettlement impacts until the Recipient has prepared and submitted to ADB the final RP based on the Project's detailed design and obtained ADB's clearance of such RP.	Being complied with. Only relevant for Lot 2 that is fully completed.
4	16	<u>Environment</u> The Recipient shall cause Barki Tojik to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Recipient relating to environment, health and safety; (b) the Environmental Safeguards; and (c) all measures and requirements set forth in the IEE, the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Being complied

<sup>2</sup> Grant Agreement (Special operations) for the Grant 0417 Wholesale Metering and Transmission Reinforcement Project between Republic of Tajikistan and the Asian Development Bank (27 January 2015): <https://www.adb.org/sites/default/files/project-document/154078/47017-003-grj.pdf>

Schedule	Paragraph	Covenant	Compliance Status
4	17	<p><u>Land Acquisition and Involuntary Resettlement</u></p> <p>The Recipient shall cause Barki Tojik to ensure that all land and all rights-of-way required for the Project are made available to the Works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Recipient relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; and (c) all measures and requirements set forth in the RP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.</p>	<p>Being complied with.</p> <p>Only relevant for Lot 2 that is fully completed.</p>
4	18	<p><u>Without limiting the application of the Involuntary Resettlement Safeguards or the RP, the Recipient shall cause Barki Tojik to ensure that no physical or economic displacement takes place in connection with the Project until: (a) compensation and other entitlements have been provided to affected people in accordance with the RP; and (b) a comprehensive income and livelihood program has been established in accordance with the RP.</u></p>	Non-applicable.
4	19	<p><u>Indigenous Peoples</u></p> <p>The Recipient shall ensure that the Project does not have any indigenous peoples impact within the meaning of the Safeguard Policy Statement. In the event that the Project does have any such impact, the Recipient shall take all steps required to ensure that the Project complies with the applicable laws and regulations of the Recipient and with the Safeguard Policy Statement.</p>	Non-applicable.
4	20	<p><u>Human and Financial Resources to Implement Safeguards Requirements</u></p> <p>The Recipient shall make available, or cause Barki Tojik to make available, necessary budgetary and human resources to fully implement the EMP and the RP.</p>	<p>Being complied with.</p> <p>The borrower makes available the budgetary and human resources to fully implement the EMP.</p>

Schedule	Paragraph	Covenant	Compliance Status
4	21	<p><u>Safeguards – Related Provisions in Bidding Documents and Works Contracts</u></p> <p>The Recipient shall cause Barki Tojik to ensure that all bidding documents and contracts for Works contain provisions that require contractors to:</p> <p>(a) comply with the measures relevant to the contractor set forth in the IEE, the EMP and the RP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in a Safeguards Monitoring Report; (b) make available a budget for all such environmental and social measures; (c) provide the Recipient with a written notice of any unanticipated environmental or resettlement risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP and the RP; (d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and (e) reinstate pathways, other local infrastructure, and agricultural land to at least their pre-Project condition upon the completion of construction.</p>	<p>Being complied with.</p> <p>Bidding documents and contracts for various works under the project have been prepared include the necessary provisions envisaged in the IEE and EMP.</p> <p>During the construction whenever required necessary corrective or preventive actions have been applied.</p>

Schedule	Paragraph	Covenant	Compliance Status
4	22	<p><u>Safeguards Monitoring and Reporting</u></p> <p><u>The Recipient shall cause Barki Tojik to do the following:</u></p> <p><u>(a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;</u></p> <p><u>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP and the RP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and (c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP or the RP promptly after becoming aware of the breach.</u></p>	<p>Being complied with.</p> <p>Semiannual Environmental Monitoring Reports have been prepared and disclosed at ADBs website and Barki Tojik website regularly, including SAEMR for July-December 2020<sup>3</sup>.</p> <p>During the project implementation period no actual or potential breach of that compliance with the measures and requirements set forth in the EMP has been observed.</p> <p>To address the COVID-19 unanticipated impact risk, a COVID-19 Management Plans were prepared by the Lot 1 and Lot 2 contractors and Package 4 contractor. The COVID-19 risk was included in the IEE update and the EMP of the Package 4 Contractor.</p>

<sup>3</sup> <http://www.barqitojik.tj/en/activity/projects/353/197539/>

Schedule	Paragraph	Covenant	Compliance Status
4	24	<p><b>Labor Standards</b></p> <p>The Recipient shall ensure that the core labor standards and the Recipient's applicable laws and regulations are complied with during Project implementation. The Recipient shall include specific provisions in the bidding documents and contracts financed under the Project requiring that the contractors, other provider of goods and services and their subcontractors: (a) comply with the Recipient's applicable labor law and regulations and incorporate applicable workplace occupational safety norms; (b) do not use child labor; (c) do not discriminate workers in respect of employment and occupation by providing, inter alia, equal pay for men and women or people from different ethnic groups for work of equal value, and to the extent possible, employing women and local people, including disadvantaged people, living in the Project area, provided that the requirements for efficiency are adequately met; (d) do not use forced labor; (e) allow freedom of association and effectively recognize the right to collective bargaining; and (f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area, particularly women.</p>	Being complied with.
4	25	<p><u>The Recipient shall strictly monitor compliance with the labor standards and provide ADB with regular reports.</u></p>	Being complied with.

41. Status of compliance with the Project EMP attached to the disclosed updated IEE is summarized in Table 9.

**Table 9: Implementation Status of EMP during the pre-construction period**

<b>Impact/Issue</b>	<b>Required Mitigation Measures</b>	<b>Compliance Attained</b>	<b>Comment on Reasons for Partial or Non-Compliance</b>	<b>Required Action and Target Dates to Achieve Compliance</b>
		<b>Package 4</b>		
Need for clear HSE goals and objectives	Preparation of a Project specific HSE Policy	Yes. Goals and objectives section in the SSEMP		
Need for a strong EHS Management System in place	Constitute a Project HSE organization and nominate a EHS Manager	It is defined in the SSEMP. Evidence of implementation has been requested to the Contractor.	Lacking evidence of implementation	31 August 2021
Need for a relevant Project Specific Construction HSE Plan	Preparation of a Project Specific Construction HSE Plan	Yes		
Need for a Grievance Redress mechanism established and functional	Establish and implement a Grievance Redress mechanism	Grievance Redress mechanism in place. Evidence of its implementation has been requested to the Contractor.	Lacking evidence of implementation	31 August 2021
Need for an Emergency Preparedness and Response Plan	Preparation of an Emergency Preparedness and Response Plan	Yes. Procedure in place as part of the SSEMP.		
Need for a Traffic Management Plan	Preparation of a Traffic Management Plan	Yes. Procedure in place as part of the SSEMP.		

#### 4.4 Material Resources Utilization

##### 4.4.1 Current Period

42. No information on the use of fuel was reported by Package 4 Contractor. This point has been highlighted by the PIC in order for this information to be incorporated in future reports. No relevant water consumption has happened due to the project during the reporting period since the Package 4 construction activities have not yet started.

##### 4.4.2 Cumulative Resource Utilization

43. The estimated gasoline consumption for lots 1 and 2 has been estimated on 22 tons and 125 tons of diesel. There is no data yet for Package 4, as no civil works started within reporting period.
44. Water consumption for drinking purposes for Lot 1 has been estimated on 15,970 liters. There is no data yet for Package 4, as no civil works started by Contractor within reporting period.

##### 4.4.3 Waste Management

45. No waste was generated under Package 4 since the civil works have not started yet.

##### 4.4.4. Cumulative Waste Generation

**Table 8. Cumulative waste generation in the project.**

# of Lot	Non-hazardous waste	Hazardous waste	Un-installed equipment
<b>Lot 1</b>	Very limited generation of domestic waste. The wood boxes where the equipment is transported are collected by people to use them. Other non-hazardous waste is managed by the licensed local waste management companies that have frame contracts in place with the BT substations. 1.5 tons generated in total during the whole implementation period.	The little pieces of cables are given to a cables manufacturing company. Rest of hazardous waste managed by the licensed local waste management companies that have frame contracts in place with the BT substations.	Kept at Barqi Tojik warehouses to be used as spare parts in the future.
<b>Lot 2</b>	Agreement with a certified solid waste management company for all the activities.	Most of them were brought to Dushanbe. During the construction, the gravel polluted with oil was sealed in a box and put on a special dump site near the border with Uzbekistan.	Kept at Barqi Tojik warehouse in Sughd province to be used as spare parts in the future.
<b>Package 4</b>	No waste generated. Construction works have not yet started.	No waste generated. Construction works have not yet started.	No waste generated. Construction works have not yet started.

## **4.5 Health and Safety**

### **4.5.1 Community Health and Safety**

46. During the current reporting period from January to June 2021 no accidents or incidents have been recorded, as no civil works started on Package 4.

### **4.5.2 Workers Health and Safety**

47. As per the statistics facilitated by the Government of Tajikistan and put in bulked at the WHO COVID-19 dashboard website, as per 15 July 2021, there have been 14,319 confirmed cases in the country and 108 deaths due to the virus since the beginning of the pandemic. The number of confirmed cases was only 40 during the current reporting period. The number of confirmed cases has been 131 in June 21, 158 in June 28 and 237 on July 5, which shows that even when the data of incidence of the virus is very low when compared with other countries, there is an increasing trend of cases and prevention measures must be applied within the Project.
48. Package 4 has in place a COVID-19 Management Plan as part of the SSEMP.
49. PIC workers based in Dushanbe and working through the subcontractor Taj Hydro, are attending normally to the office now.
50. In relation to package 4, no accidents have been reported by the Contractors since the beginning of the implementation.

## **4.6 Grievance and Redress Mechanism**

51. There were no complaints recorded during this reporting period as per the PMUES feedback.

## **4.7 Training**

52. Information and evidence on EHS aspects to the workers has been requested to Package 4 Contractor since this point was not covered in the Contractor monthly report. The PIC will follow-up on this during the next reporting period.

## 5 FUNCTIONING OF THE SEMP

### 5.1 SEMP Review

53. The status of the environmental management plans is presented in Table 9 below.

***Table 9. Status of Environmental Management Plans.***

Management Plan	Date of approval	Date of Submission
Contractor's Environmental Management Plan, including H&S Plan for Package 4	April 2021	February 2021
Contractor's Environmental Management Plan, including H&S Plan for Lot 1 and 2	January 2017	June 2016
Contractor's Site Specific Environmental Management Plan for Lot 1 and 2	June 2017	June 2017
Updated Social and Environmental Management Plan (annex to the revised IEE)	September 2020 (previous version from January 2017)	August 2020

54. The IEE, including the EMP, is now including Package 4.
55. The Contractors are able in general terms to implement the mitigation and monitoring measures set in the Site-Specific Environmental Management Plans (SSEMPs). Package 4 Contractor is submitting the monthly monitoring reports but key information is missing from the monthly reports such as the inventory of fuel consumption, vehicles mileage, COVID-19 prevention measures, use of PPE or HSE training performed.
56. The mitigation measures set out in the Package 4 CEP MMP are still appropriate, and they are working as intended.

## **6 GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT**

### **6.1 Good Practice**

57. Nothing to report since no site inspections took place due to the absence of construction works.

### **6.2 Opportunities for Improvement**

58. It has been suggested by the PIC that a coordination meeting takes place involving Barqi Tojik, the Package 4 Contractor and the PIC. Barqi Tojik volunteered to organize it. PIC is looking forward to the meeting taking place.

## **7. SUMMARY AND RECOMMENDATIONS**

### **7.1 Summary**

59. No complaints, accidents or incidents were recorded during the reporting period.
60. The Contractor Environmental, Health and Safety Plan for Package 4 is in place since 26 April 2021.
61. Three newly open issues: Package 4 Contractor to confirm if the 3 planned EHS Managers (one for each main region) are already working in the Project; and in relation to Package 4, regarding the terms of provision of disconnection (which may mean short black outs for the utility customers), there is a lack of planning. The Barqi Tojik customers have not been informed on it yet.
62. No site visits were implemented by the International Safeguards Specialist of the PIC within January-June 2021 since there were no construction activities being implemented.
63. It has been suggested by the PIC that a coordination meeting takes place involving Barqi Tojik, the Package 4 Contractor and the PIC. Barqi Tojik volunteered to organize it. PIC is looking forward to the meeting taking place.

**Table 1: Implementation Status of Corrective Actions proposed in the last environmental monitoring report  
(July-December 2020)**

	<b>Issue</b>	<b>Required Action</b>	<b>Responsibility</b>	<b>Timing (Target Dates)</b>	<b>Description of Resolution and Timing (Actual)</b>	<b>If not yet resolved, indicate the reason why and specify further required action and timeframe.</b>
1	Environmental and Social Management Plan.	1. TBEA to submit the Monthly Environmental Monitoring Reports for LOT 1 and LOT 2 since July 2018.	TBEA	By March 22, 2021.	<b>RESOLVED.</b> Lot 1 and Lot 2 components have been officially closed.	
2	Best practice. The PMU are the ultimate responsible of the implementation of the safeguards.	2. PMU to extend Non-Compliance notices to the Contractors for the open issues above and to attach this Corrective Action Plan to them for open issues apart from the lack of compaction, levelling and graveling at the poles in the substations.	PMU	By March 12, 2021.	<b>RESOLVED.</b> There was no need for the PMU to extend extend Non-Compliance notices on it since site inspections were performed in March-April 2021 and the needed mitigation measures had been implemented by the Contractor.	
3	Environmental and Social Management Plan.	3. TBEA to re-do the compaction, levelling and graveling of the following SSs: Akademgorodok, Buston, Promishlenaya, Shahri and Shursay.	TBEA	By March 31, 2021.	<b>RESOLVED.</b> Site inspections were performed in March-April 2021 and the needed mitigation measures had been implemented by the Contractor. Refer to Annex 2 for pictures.	
4	Environmental and Social Management Plan.	4. The Contractor TBEA to move the meter rack or Barqi Tojik to move the AC unit so the AC unit is not anymore directly on top of the meters rack.	TBEA	By March 31, 2021.	Status unknown.	Status will be updated by the PMU and the Consultant in the next reporting period.
5	ADB Security Policy Statement for 2009 (SPS).	LOT 1 Contractor should prepare and submit a solid COVID-19 Management Plan shall be submitted.	TBEA	By March 22, 2021.	<b>RESOLVED.</b> Lot 1 and Lot 2 components have been officially closed.	

## 7.2 Recommendations

64. Perform a bi-monthly coordination meeting on the EMP and the Corrective Action Plans implementation between the PMU and the PIC, to which representatives of the Contractors might be invited. By having a more fluid and frequent communication channel, there will be a push for making the implementation of those measures smoother and quicker.
65. Follow-up closely with Package 4 Contractor in order for their monthly monitoring reports to include a safeguards section covering all the key aspects.
66. The following Corrective Action Plan has been prepared to correct the identified non-conformances.

**Table 10. Corrective Action Plan for July-December 2021**

Issue	Required Action	Responsibility	Timing (Target Dates)
According to the last SAEMR (Table 10), the Contractor TBEA was supposed to move the meter rack or Barqi Tojik to move the AC unit so the AC unit is not anymore directly on top of the meters rack by 31 March 2021, however, status is unknown. (pending issue since the last monitoring period)	Confirm the status. The result will be reported in the next SAEMR.	SE PMUES	By 31 August 2021
Package 4 Contractor monthly monitoring reports are lacking key safeguards information such as the inventory of fuel consumption, vehicles milage, use of PPE or HSE training performed.	Package 4 Contractor including a safeguards section in all the future reports covering all the key aspects of the project and incorporating pictures as evidence. Guidance will be provided by the PIC	Package 4 Contractor	By 5 August 2021
Package 4 Contractor to confirm if the 3 planned EHS Managers (one for each main region) are already working in the Project.	Clarification to be submitted to the PMU and the PIC.	Package 4 Contractor	By 30 July 2021
Package 4, regarding the terms of provision of disconnection (which may mean short blackouts for the utility customers), there is a lack of planning.	A detailed Schedule for the temporary break of electricity supply has to be prepared.	Package 4 Contractor	By 31 August 2021
Lack of schedule for the temporary break of electricity supply	Schedule for the temporary break of electricity supply to be reviewed by Barqi Tojik and then communicated to the customers (radio programs, notices at bills payment kiosks, notices at Barqi Tojik regional offices and other suitable communication actions).	Package 4 Contractor and Barqi Tojik	By 30 September for the substations where civil works will mean blackouts during October-end December

## ANNEXES

### Annex I: Main parties involved and their updated contact details.

Party	Focal point	Contact details of the focal point
Implementing Agency: SE PMUES	Head of the Project Management Unit, Mr. Asrorzoda Nusratullo Sattor	pmu_tj@mail.ru
	Head of the Environmental Sector of the PMU, Mr. Karimov Sirojiddin	pmu_tj@mail.ru
	Chief EHS Specialist at the PMU, Mr. Aziz Holov	pmu_tj@mail.ru
Funding institution: ADB	ADB Regional Environmental Safeguards Consultant. Mrs. Malika Babadzhanova	mbabadjanova1.consultant@adb.org
	ADB National Resettlement Specialist. Mr. Faizullo Kudratov	fkudratov.consultant@adb.org
Project Implementation Consultant: Mercados-Aries International (formerly AF Mercados EMI)	MAI Project Director Mr. Francisco Romero	francisco.romero@mercadosaries.com +34 665024822
	MAI International Environmental and Social Specialist, Mrs. Patricia Ramos	patricia.ramos@mercadosaries.com +34 663999667
Package 4 Contractor: JSC "Tojikgidroelectromontaj" (TGEM)	Mr. Yormadov B.A., EHS Responsible Mr. IkmoIiddini Inomuddin, Project Manager  Mr. Faridun Bobokalonov. Assistant to the Manager.	Unknown +992 98 911 61 14, ikmoIiddini.inomuddin@tgem.tj +992 93 524 39 55 tgem_faridun.bobokalonov@mail.ru

## Annex 2. Photo report for the implemented corrective actions under Lot 1



**Photo 1. Akademgorodok substation:** area around the poles with installed new equipment was compacted and graveled – 23/04/2021



Photo 2. Vostochnaya substation: area was reinstated and graveled – 23/04/2021



Photo 3. Vakhdat substation: area around poles was compacted and graveled. 23/04/2021



**Photo 4. Shuron substation: area is reinstated, compacted and graveled – 23/04/2021**



**Photo 5. Vinzavodskaya (Galaba) substation: area is compacted and graveled – 23/04/2021**