

Environmental Monitoring Report

Project No.: 47017-003
Bi-annual report (July – December 2017)
April, 2018

Tajikistan: Wholesale Metering and Transmission Reinforcement Project

Prepared by: State Establishment “Project Management Unit for Electroenergy Sector”

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ABBREVIATIONS

ADB	Asian Development Bank
AMI	Advanced Metering Infrastructure
AT1	Autotransformer No 1
AT2	Autotransformer No 2
CEMMP	Contractor's Environmental, Health and Safety Management and Monitoring Plan
CT	Current Transformer
EDM	Energy Data Management
EHS	Environment, Health & Safety
EMP	Environmental Management Plan
EMS	Environmental Management System
ES	Environmental specialist
HSE	Health, Safety and Environment
FAT	Factory Acceptance Test
IEE	Initial Environmental Examination
IFC	International Finance Corporation
IT	Information Technology
kV	Kilovolt
LAN	Local-Area Networking
MDM	Meter Data Management
MVA	Megavolt Ampere; unit used to measure apparent power
OHL	Overhead Transmission Line
PAM	Project Administration Manual
PIC	Project Implementation Consultant
PLC	Power-line Communication
PMU	Project Management Unit



PPE Personal Protective Equipment

RoW right-of-way

RETA Regional Technical Assistance project 8663

SDH Synchronous Digital Hierarchy, International Standard for Data Transmission

SS Substation

SSEMP Site-specific Environmental management plan

TL Transmission line

VT Voltage Transformer



1. INTRODUCTION

1.1 General information about the Project

1. The Republic of Tajikistan has received financing (grant) from the Asian Development Bank (ADB) towards the cost of Wholesale Metering and Transmission Reinforcement Project. Parts of this financing is being used for payments under the contract for Rehabilitation of Substation Rudaki, Extension of Substation Ayni and Construction of new 220 kV OHL between SS Ayni 220 kV and SS Rudaki; replacement of electricity meters, several current transformers and several voltage transformers, introduction of an advanced metering infrastructure, and introduction of a settlement system. BT, ADB and the Consultant has agreed on a preliminary alignment of the 50 m wide right-of-way (RoW) of the TL based technical considerations and the need to avoid traversing human settlements and private landholdings.
2. 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 presently suffering from load shedding.
3. This Compliance report has been prepared by the social and environmental safeguards monitoring department of the PMU Barqi Tojik.
4. The Projects components include:
 - a) Installation of 1,682 wholesale meters and settlement system including 846 current transformers and 744 voltage transformers (Lot A);
 - b) Construction of approximately 95 km of new single circuit single conductor 220 kV transmission line interconnecting Rudaki and Ayni Substation with rated capacity of 320 MVA (Lot B).
5. The location of the Project component Lot B is presented below in Figure 1 in the scale of the Country.

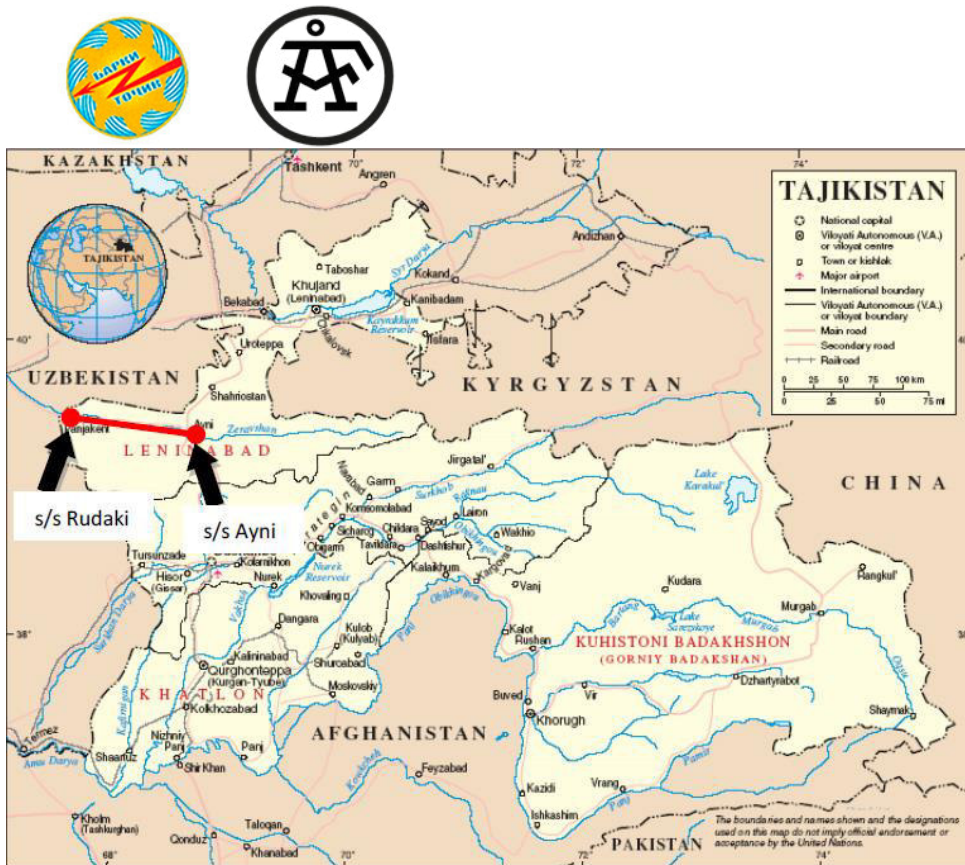


Figure 1. Location of the Project (Lot B)

6. The present Bi-Annual Environmental Monitoring Report is the second report concerning the ‘Wholesale Metering and Transmission Reinforcement Project’ and it covers the period from July to **December** 2017.

7. The report aims to provide information on the progress of implementing the Environmental Management Plan (EMP) and SSEMP and to evaluate the implementation of EMP/SSEMP for necessary improvement if needed. The purpose of Environmental Monitoring Report is to satisfy the environmental safeguard requirements of the Government of Tajikistan, Barqi Tojik (through PMU) and ADB.

8. Barqi Tojik is the vertically integrated state owned electric power utility in Tajikistan. Barqi Tojik is in the process of organizational restructuring to form three separate business units. The three business units will comprise generation, transmission and distribution. The transmission business unit will operate 500/220/110 kV systems and the distribution unit will be responsible for operating systems at 35 kV and below.

2. Documents relevant for Environmental Safeguards

9. Five documents were prepared for the Project with inclusion of environmental safeguards:

- Initial Environmental Examination (IEE) for Wholesale Metering and Transmission Reinforcement Project, September 2014;
- Updated Initial Environmental Examination (IEE) for Wholesale Metering and Transmission Reinforcement Project, December 2016;



- Project Administration Manual (PAM) to Wholesale Metering and Transmission Reinforcement Project, November 2014;
- Grant Agreement between Republic of Tajikistan and ADB dated 27 of January 2015. Schedule 4, clauses 16,21 and 22;
- Appendix H of the Special Conditions of the Contract Agreement between PIC Mercados and Barki Tojik;

10. The IEE describing the required actions for the EMP performance monitoring and supervision has been approved by ADB and the latest up-dated version is published on the ADB Website (<https://www.adb.org/projects/documents/taj-wholesale-metering-and-transmission-reinforcement-dec-2016-ieee>)

11. In May 2017, the national Committee of Environmental Protection (CEP, State ecological expertise (SEE)) issued the environmental approval (No. 421-15 dated 18th of May 2017) to the Project based on this IEE/EMP report.

3. Construction activities and Project progress during the last 6 months

12. The contract with the Contractors (TBEA and Huawei) for Lot A has been signed in September 2016. Kick-off for the Project was in November 21st, 2016. According to the updated work plan, the implementation of the Lot A will take 19 months, and operational acceptance is expected to be admitted in April 2019.

13. Huawei/TBEA developed the design phase during this semester the other activities were the development and installation of the Data Center for the Metering sub-Project (Lot A). Software FAT was postponed to January 2018, and Meter FAT was postponed for four months the tentative date is April 2018.

14. No construction activities in this period were implemented on Lot A.

15. Anticipated schedule for the next phases of Substations' works is the following:

- Commissioning and energization of AT2 in Rudaki SS, completion works Scheduled from January 1 to January 31, 2018.
- Amendment 2's scope of work, design stage , 110 KV Switchyard Rudaki's Substations, Scheduled from March to September, 2018.

16. Anticipated schedule for the next phases of OHL works is the following:

- Overall Operational Acceptance Certificate, March, 2018 .

17. The work progress on construction in transmission line is shown in Table 1 below.

Table 1 Work progress in Transmission line construction

	No. of towers/km of OHL*	Progress
Survey	244	100,00 %



Lanes and accesses	244	100,00 %
Foundations	244	100,00 %
Tower erection	244	100,00 %
Stringing	91,17 km	100,00 %
Fiber optic joints	30	100,00 %
WORKS TOTAL	-	100,00 %

* Total number of towers is 244, total length of the line is 91,17 km

18. The contract Between BarqiTojik and the Contractor (TBEA) on Transmission Reinforcement sub-Project (Lot B) was signed in December 2015. TBEA has sub-contracted “Broadtec” company for the construction works.

19. Construction activities for the reporting period are described in the Table 2 below.

Table 2. Construction activities on Lot B implemented from July to December 2017

N	Month, 2017	Construction activities
1	July	Stringing 160-234, Electromechanical Assembly in Ayni and Rudaki
2	August	Installation of FO Boxes from 1 to 234, Autotransformers transport, Electromechanical Assembly in Ayni and Rudaki
3	September	Survey, Roads, Foundations, Tower Erection, Stringing and FO Boxes from 234 to 244, Commissioning in Ayni and Rudaki
4	October	Autotransformer 1 Assembling, 220 kV and 10 kV Switchyard termination in Rudaki, OHL wrap up inspection.
5	November	AT1 Commissioning and Energization, OHL Completion Certificate
6	December	AT2 works kick off, 110 Switch breakers assembling

4. Changes in project organization and environmental management team

20. The Executing Agency for the Project is the 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.

21. The PMU includes the Environmental Sector of the Projects Monitoring Department whose responsibilities include, among other things, the management of all environmental aspects of the project. The Head of the Environmental Sector of the Projects Monitoring Department is Mr. Karimov Sirojiddin. The Chief EHS Specialist at the PMU is Mr. Aziz Holov.

22. The Project Implementation Consultant (AF Mercados) is providing technical assistance to the PMU in the management and reporting of the project. The PIC is responsible for reviewing and endorsing



the Contractor's Environmental Management Plan (SSEMP) and, in particular, for supervising and reporting on the Contractor's performance in the implementation of the SSEMP.

23. The PIC is also responsible to establish Environmental Management System as a part of the Project's Management System. This system has been established and all Environmental, Health and Safety documents and reports are filed in the system.

24. PIC's Environmental Specialists are:

- Mr. PasiVahanne, International Environmental Safeguards Specialist
- Ms. Muazama Burkhanova, National Environmental Safeguards Specialist

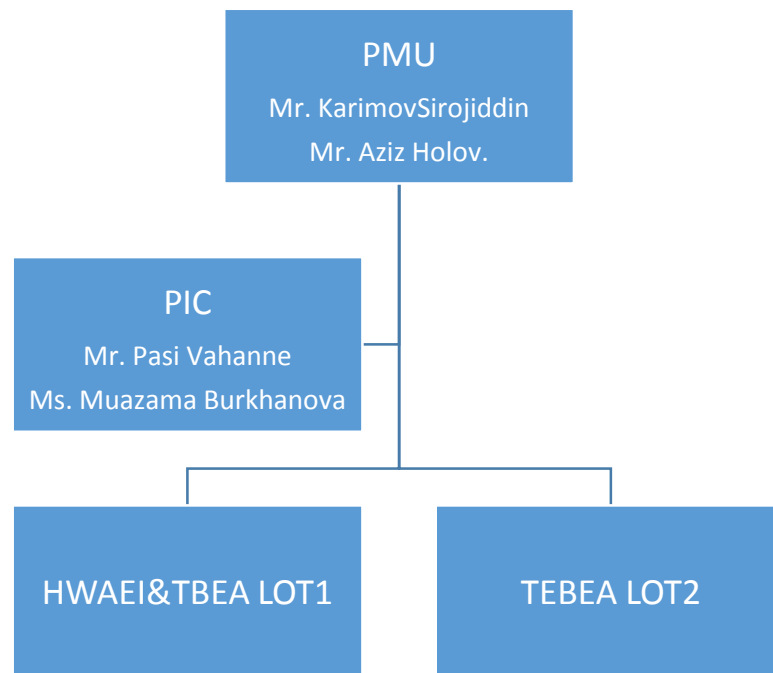


Figure 2. EHS management of the project

25. For Lot A the Contractors' (Huawei/TBEA) Environmental Unit is responsible for the implementation of the Contractor's Environmental Monitoring Plan. The Contractors have named the following persons responsible for EHS issues:

- Mr.Zhang Bo, HSE Manager (TBEA)
- Mr. ZokirovSheroz, HSE Manager Huawei)
- Mr. Jin Dean, EHS Site Manager (TBEA)
- Mr. Huseynov Ilhom, EHS Site Manager (Huawei)
- Mr. Guan Yonggang, EHS Site Manager (TBEA)
- Mr. Nazarhudoev, HSE Site Manager (Huawei)
- Mr. ZhurakulovDoshod, HSE Site Manager (Huawei)

26. Organizational structure of the Huawei/TBEA EHS personnel is presented in Figure 3 below.



Figure 3. EHS management of Contractor on Lot A

27. For Lot B the Contractor (TBEA) is implementing construction works. Contractor's Environmental Unit is responsible for the implementation of the CEMMP, monitoring of the construction activities and reporting. The Contractor has named the following persons responsible for EHS issues:

- Mr. Zhang Zhenqing, EHS Manager
- Mr. Guang Yonggang, EHS Ayni Site Manager
- Mr. Jin Dean, EHS OHL Site Manager
- Mr. Che Jinlu, EHS Rudaki Site Manager

28. Organizational structure of the TBEA's EHS personnel is presented in Figure 4 below.

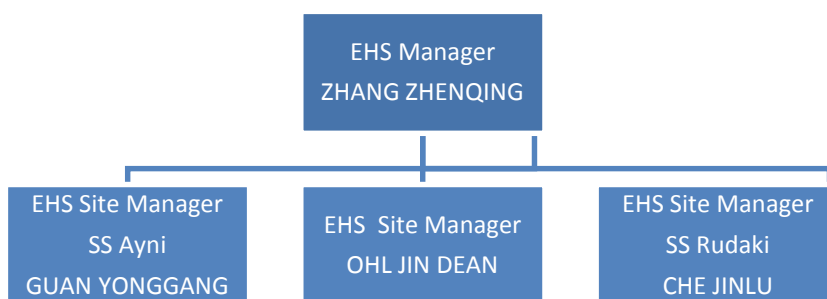


Figure 4. EHS management of Contractor on Lot B



4.1. Relationships with Contractors and PMU

29. The PIC has continuously advised Contractors on HS&E issues, e.g. on the preparation of Contractor's Environmental Monitoring Plan and Contractor's Monthly Environmental Monitoring Reports.
30. The PIC organized training for the Contractor's and PMU on Environmental and Social Safeguards in December 2016.
31. The National Environmental Specialist of the PIC has discussed regularly with the PMU's Environmental Experts and RETA/ADB National Environment Specialist on environmental safeguards and EH&S issues.
32. The Lot B Contractor has presented the following agreements to PIC:
 - An agreement between the Hospital at Ayni and TBEA
 - An agreement between the Environmental Department of Ayni local authorities and TBEA concerning waste management

5. ENVIRONMENTAL MONITORING

33. Environmental Monitoring typically consists of two kinds of activities; visual inspections and audits at the construction sites, and measurements to gain numerical data. Environmental Monitoring of both Lot A and Lot B of the Wholesale Metering and Transmission Reinforcement Project is based on the IEE and EMP attached to it, as well as on Contractor's Environmental Monitoring Plan.

5.1. Air quality

34. In accordance with EMP/SSEMP no instrumental measurement of air quality is foreseen, only visual observations. No dust emission was observed during the installation of AT1. Vehicles of Contractor were regularly maintained. No other emissions observed/recorded.

5.2. Water quality

35. In accordance with EMP/SSEMP no instrumental measurement of water quality is foreseen, only visual observations. There were enabled portable latrines at the site work available to the workers.

5.3. Noise

36. All works were conducted inside the SS and included mostly assembly and installation. That is why level of noise was not measured in reporting period.



5.4. Flora and Fauna

37. All works were conducted inside the SS. No illegal pouching, cutting of trees were recorded. Confirmed by environmental departments of Panjakent and Ayni districts.

5.5. Occupational Health and Safety issues

38. No workers were observed without protective helmets or enclosed shoes, during PIC environmental specialist's inspections.
39. During inspection in November 2017 by PIC environmental specialists, non-observance of occupational safety and health measures was detected when fire-fighting equipment and first aid means were not in full set.
40. The Contractor's plans and advice is that workers would not work at heights over two metres without fall protection, which is consistent with the IFC EHS requirements.
41. On the camp territory, health conditions are generally observed for the Contractor's employees living in the camp: kitchen, bathroom, administrative premises. The non-compliance was observed in November 2017 with hygienic rules at working and living premises, in the kitchen, the unsanitary condition of toilets. Sewage from the kitchen without purification was poured onto the slope. Contractor was advised immediately improve a septic tank for the purification of sewage kitchen water for pre-settling and cleaning, also to repair and sanitize the toilets, and, to carry out the sanitary-hygienic treatment of the kitchen premise.

6. ENVIRONMENTAL MANAGEMENT

6.1. The environmental management system (EMS), site-specific environmental management plan (SSEMP), and work plans

42. The PIC will assist PMU to enable an Environmental Management System as a part of the Project's Management System. This system has been established and all Environmental, Health and Safety documents and reports are filed in the system.
43. The status of Contractor's Environmental Monitoring Plans and Site Specific Environmental Monitoring Plans is presented in Table 3 below.

Table 3. Status of Environmental Management Plans

Management Plan	Status of approval	Date of Submission
Contractor's Environmental Management Plan, including H&S Plan (1 st version in Russian and English)	Approved (17.01.2017). It was approved by PMUES with condition to revise it in accordance with ADB template. Annex 1 (Letter of PMUES to Contractor)	20.06.2016



Contractor's Site Specific Environmental Management Plan (revised version)

Approved revised version (23.06.2017) in English

June 2017

6.2. Site inspections and audits

44. Site inspections and audits performed during July 2017 – December 2017 are the following:
45. There was an ADB environmental mission on September 18th, Ayni SS, 220 kV OHL and Rudaki's were surveyed, following minor non compliances were found:
- Minor environmental non-compliance was observed during the site visit. Wooden waste was disposed outside the project boundaries. Remedial actions were agreed – the waste must be stored inside the project boundaries until proper disposal or re-use. The Jul-Dec 2017 EMR will report on this and present disposal method.
 - A storage site for old transformers was observed. On this area, transformer oil was released into special barrels and few small oil spills were observed. Advice was given to Contractor to collect immediately the polluted soils and dispose properly at permitted landfill. It was also advised to add a layer of gravel and check joints where the leaks can occur in order to avoid soil contamination.
46. OHL Wrap up inspection: Mr Kumara (International Civil Work Expert) and Mr. Timur Usmanov (Transmission Line Local Expert) implemented a wrap up inspection of 220 kV Ayni-Rudaki OHL from September 25 to 29, as a result of it several environmental issues were detected and included in the list of mistakes to remedy.
47. Rudaki's Substation inspection: Mrs. Burhanova Muazama, ES of PIC Mercados, implemented an inspection in Rudaki's Substation from 27 to 28 November, even though this Substation is not finished yet main works were already made at the time of the inspection, that's why PMU and PIC decided to check the main environmental issues.
48. Summary of site visits and audits done by all parties in period from July to December 2017 are shown in Table 4 below.

Table 4: Audits and Supervision over the period

Organization	Purpose	Performed by	Date
PIC	OHL wrap up inspection	PIC's Team for line's constructioun	September 2017
ADB,BT&PIC	Handover Mission Environment	ADB, Barqi Tojik & AF Mercados	September 2017
PIC	Rudaki's Substation environmental issues inspection	PIC's Environmental Local Expert	November 2017

7. Planned site visits for the January-June 2018

49. PIC's National Environmental Specialist has scheduled site-visits (Lot B) as presented in Table 5.



Table 5. Scheduled site-visits by PIC's National Environmental Specialist in 2018 (Q1 and Q2)

Activities	Date
Rudaki's Substation Wrap up inspection	January, March
Check up inspections for the OHL	March

7.1 Non-compliance notices

50. The mistakes found in this reporting period are mostly corrected, list of outstanding items was sent to contractor for their correction as a necessary condition to the Operational Certificate issuing.
51. Table 6 below summarizes monitoring observations done during the field visits of PIC Environmental Specialists.

Table 6. Non-compliance observations in reporting period

Parameter	Remarks
Rudaki Substation	
The book of complaints, titled "Opinions of the district residents" exists and contains the letters of gratitude for the project from the employed workers of the construction site;	The complaints book should be put at a conspicuous place, (preferably at the entrance to Substation) for enrolling the records by the local population;
Agreements with utility services and the hospital of Panjakent city have been prepared. Table of "Checklist of safety conditions" contains the results of the Contractor's EHS monitoring.	Monitoring reports, permission documents, EMP/SSEMP, monthly plans, and other (agreements with the local hospital and utility services of Panjakent city, receipts for garbage collection, etc.) should be in full set in a separate place at the contractor's field office.
The collection and storage of the construction and solid waste, and spare parts at the territory, full of household activities of the Contractor, was in a chaotic and mess condition. It does not meet the requirements of environmental protection;	Construction materials and spare parts should be collected in one place in the warehouse, covered with a protective film against humidity and rain on the bottom and top of the materials. The Contractor identified the location and installed containers for the collection of solid waste, but garbage and waste fall out throughout the territory. It is necessary to make a separate area for garbage containers and streamline the collection of solid waste; The utility and Sanitary/ Epidemiological Services of Panjakent city is recommended to impose a penalty for the Contractor's failure to comply with environmental and health requirements for employees and workers on the collection and storage of solid waste;
There is the non-compliance with hygienic rules at working and living premises, in the kitchen, the unsanitary condition of toilets. Sewage from the kitchen without purification is poured onto the slope.	To improve a septic tank for the purification of sewage kitchen water for pre-settling and cleaning. Do not allow the draining of dirty water to the slope, which is adjacent to SS. To repair and sanitize the toilets. To carry out the sanitary-hygienic treatment of the kitchen premise;
The first-aid kit was not in a full set;	To buy additional first-aid kits, store them in a clean dry place;



There was the not full set of fire-fighting equipment	Ensure the availability of fire protection equipment in a full set at the substation;
Have to be provided the test reports of transformer oil filled in a new autotransformer.	Test reports of transformer oil on the subject of compliance with the accepted standards should be provided to PIC by the Contractor.
Old removed devices temporary depot, there is an area placed next to the 10 kV switchgear containers(eastern part) where the old replaced parts and devices are temporary stored Contractor's depot where some construction's material are piled up placed just next to the plot of the SS in the area where 220 kV lines enter the SS(western part) OHL AYNI-RUDAKI	Barqi Tojik has planned the destination to store those parts and devices, the contractor has committed to it self to transport them to the planned warehouse. The contractor has been urged to dismantle and clear the area, leaving it in the same status it used to be before the works
Towers 7,73,100,142,1 71,197,223	Some garbage and work leftovers were detected in this towers the contractor was instructed to pick them up till the complete cleaning of each area
Towers142, 164, 183, 201, 221, 223,	Mistaken backfilling can provoke some kind of soil slide the contractor has been instructed to implement remedy works immediately

7.2. Corrective action plans

52. The implementation status of corrective actions, recommended for July-December 2017 is shown in Table 7 below.

Table 7. Status of implementation of Corrective Action Plan for July-December 2017

No	Description of Non-compliance	Corrective action required	Deadline	Status
Documentation				
1	No agreement on medical care in Panjakent	Delivery of an agreement to the Consultant, if not existing agreement must be done	31 st July 2017 at the latest	Done
2	No agreement on waste management between the Environmental Department of Panjakent local authorities and TBEA	Preparation of an agreement on waste management with Environmental Department of Panjakent local authorities and TBEA	31 st July 2017 at the latest	Done
3	No agreement on used transformer oil handling	Delivery of an agreement to the Consultant, if not existing agreement must be done	31 st August 2017 at the latest	Done



4	Missing separate Contractor's Monthly Environmental Monitoring Reports (6 pcs; December 2016-May 2017)	Preparation of missing 6 reports	31 st August 2017 at the latest	Contractor submitted 6 technical reports with reported status on health, safety and environment issues. They did not prepare separate monthly environmental monitoring reports.
5	There was no Complaints book in Panjakent office	Complaints book should be present also in Panjakent, and to be filled daily (even if no complaints), also in Ayni	Immediately, July, 2017 at the latest/daily	Done
Ayni camp				
6	There is mold in the bathroom	Cleaning the mold in the bathroom	Immediately, July, 2017 at the latest	Done. The camp was then dismantled
Transmission line				
7	Warning signs at construction sites were not sufficient, no fences	Improve safety procedures at construction sites, use fences where possible	Immediately/continuously	Done
8	Waste bins were not available at sites, overall cleanness was poor	Improve waste management and cleanness at sites	Immediately/continuously	Done
Rudaki Substation				
9	Open manhole on the road	Cover the manhole	Immediately	Done
Panjakent office/accommodation area				
10	Waste burning	Forbid waste burning, organize proper waste management practices	Immediately	Done
Subcontractor's storage/maintenance area in Panjakent				
11	Waste management was not well organized, overall cleanness was poor	Organize proper waste management practices	Immediately	Done
12	Open waste oil canisters were observed at the yard and maintenance area	Organize proper waste management practices	Immediately	Done

53. The corrective action plan recommended for the next 6 months from January to June 2018 is described in Table 8:



Table 8. Corrective Action Plan I, based on November 2017 PIC's Inspection – for January-June 2018

No	Description of Non-compliance	Corrective action required	Deadline	Responsibility
Rudaki SS				
1	The book of complaints, titled "Opinions of the district residents" exists and contains the letters of gratitude for the project from the employed workers of the construction site;	The complaints book should be put at a conspicuous place, (preferably at the entrance to Substation) for enrolling the records by the local population;	January 2018	TBEA
2	Agreements with utility services and the hospital of Panjakent city have been prepared. Table of "Checklist of safety conditions" contains the results of the Contractor's EHS monitoring.	Monitoring reports, permission documents (EMP, contracts, monthly plans, and other agreements with the local hospital and utility services of Panjakent city, receipts for garbage collection, etc.) should be in full set in a separate place at the contractor's field office.	January 2018	TBEA
3	The collection and storage of the construction and solid waste, and spare parts at the territory, full of economic (household) activities of the Contractor, is in a chaotic and mess condition that leads to the erosion of soils and decrease in the quality of construction materials. It does not meet the requirements of environmental protection	To ensure that monitoring reports, EMP / SSEMP documents, permits (for camps, garbage disposal, with hospitals, etc.), complaints book, etc. – it should be available on site- in the field offices of contractors in Ayni and Panjakent	January 2018	TBEA
4	There is the non-compliance with hygienic rules at working and living premises, in the kitchen, the unsanitary condition of toilets. Sewage from the kitchen without purification is poured onto the slope,	To improve a septic tank for the purification of sewage kitchen water for pre-settling and cleaning. Do not allow the draining of dirty water to the slope, which is adjacent to SS. To repair and sanitize the toilets. To carry out the sanitary-hygienic treatment of the kitchen premise;	January 2018	TBEA
5	The first-aid kit was not in a full set;	To buy additional first-aid kits, store them in a clean dry place;	immediately	TBEA
6	There was lack of full-set of fire-fighting equipment	Ensure the availability of fire protection equipment in a full set at the substation;	immediately	TBEA
8	Old removed devices temporary depot, there is an area placed next to the 10 kV switchgear containers(eastern part) where	Barqi Tojik has planned the destination to store those parts and devices, the contractor has	January 2018	Bq-TBEA



	the old replaced parts and devices are temporary stored	committed to it self to transport them to the planned warehouse.		
9	Contractor's depot where some construction's material are piled up placed just next to the plot of the SS in the area where 220 kV lines enter the SS(western part)	The contractor has been urged to dismantle and clear the area, leaving it in the same status it used to be before the works	January 2018	TBEA
10	Area of construction sites after completion of construction works	Conduct post-construction environmental audit and fill check-list	End of March 2018 or beginning of April 2018	TBEA, PIC, PMUES

12. Corrective plan II for OHL is shown in Table 9 below.

Table 9 Corrective Plan based on 24/29 September Wrap up OHL inspection

No	Description of Non-compliance	Corrective action required	Deadline	responsibility
Documentation				
1	Towers 7,73,100,142,171,197,223 - Garbage and work leftovers were detected in this towers	Pick them up till the complete cleaning of each area	March 2018	Contractor
2	Towers 142, 164, 183, 201, 221, 223 - Mistaken backfilling can provoke some kind of soil slide	Implement remedy works.	March 2018	Contractor
3	Area of construction sites after completion of construction works	Conduct post-construction environmental audit and fill check-list	End of March 2018 or beginning of April 2018	TBEA, PIC, PMUES

7.3. Complaints

13. No complaints were recorded during reporting period. There was request to PMU from environmental department of Panjakent district to improve sanitary conditions of kitchen in construction camp and clean all areas of construction sites after completion of construction works.



ANNEXES:

Annex 1: Letter of PMUES with approval of SSEMP (first version) of Contractor

Annex 2: Photographs from Rudaki SS

Annex 3: Photographs from the OHL

Annex 4: Photographs from the Handover Mission Environment



Annex 1. Letter of PMUES with approval of Contractor's SSEMP (first version)

ҲУКУМАТИ
ҶУМҲУРИИ ТОҶИКИСТОН
МУАССИСАИ ДАВЛАТИИ
«МАРКАЗИ ИДРОАИ ЛОИҲАҶОИ
БАҲШИ ЭЛЕКТРОЭНЕРГЕТИКА»



ПРАВИТЕЛЬСТВО
РЕСПУБЛИКИ ТАДЖИКИСТАН
ГОСУДАРСТВЕННОЕ УЧРЕЖДЕНИЕ
«ЦЕНТР УПРАВЛЕНИЯ ПРОЕКТАМИ
ЭЛЕКТРОЭНЕРГЕТИЧЕСКОГО СЕКТОРА»

GOVERNMENT OF THE REPUBLIC OF TAJIKISTAN
STATE ESTABLISHMENT

«PROJECT MANAGEMENT UNIT FOR ELECTRO-ENERGY SECTOR»

734042 ш. Душанбе к. Қаҳарова – 39А телефон: 222-25-58 Факс: 222-25-56; E-mail: pmu_tj@mail.ru

17.01.17. №16/76/1-117

на: _____ от _____

To: TBEA

Att.: Mr. Wang Jian
Director of Branch Company
E-mail: 18323482@qq.com
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Co: AF Mercados EMI

Attn. Mr. Stefan Rose – Team Leader
E-mail: stefan.rose@afconsult.com

Wholesale Metering and Transmission Reinforcement Project ADB Grant - 0417TAJ
Subject: Approval of Environmental and Health and Safety Management and Monitoring Plan

Dear Mr. Wang Jian,

We had reviewed and approved the submitted Environmental and Health and Safety Management and Monitoring Plan. Please note that this Plan should be updated in line with ADB comments and resubmit for approval.

Best regards,

Executive Director

N. Nazarzoda



ANNEX 2: PHOTOGRAPHS FROM RUDAKI SS



1. Uncontrolled spilled sewage water Spare parts in a basin with oil, Rudaki SS- November 2017



2. Construction waste, Rudaki SS - November 2017.



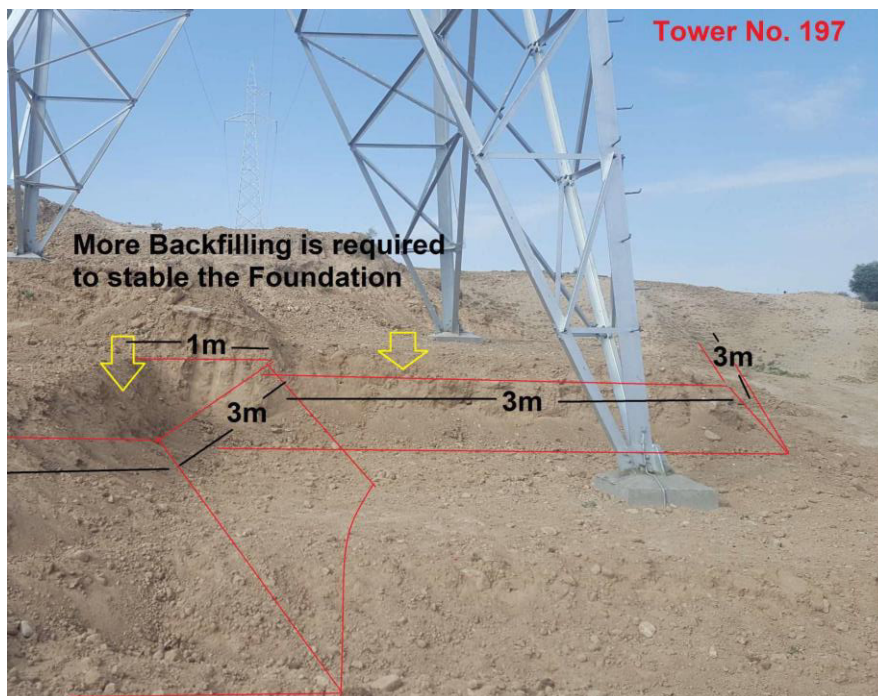
3. Book of complaints, Rudaki SS, November 2017. 4. First aid kit, Rudaki SS, November 2017



ANNEX 3 PHOTOGRAPHS FROM THE OHL



5. Mistaken soil refilling Tower No 142 Leg C, 2017 September.



6. Mistaken soil refilling - Tower No 197 , September 2017



ANNEX 4: PHOTOGRAPHS FROM ADB ENVIRONMENTAL MISSION IN SEPTEMBER 2017



7. Meeting with representatives of Contractor TBEA, PIC Mercados and PMUES at Ayni substation, September, 2017.



8. Old (left side) and new bays at Ayni substation, September, 2017.



9. New control panels – Ayni sub-station, September 2017



10. Installed towers and transmission lines (220 kV) – Ayni district, September 2017



11. Warning signs installed – Rudaky substation, September 2017



12. Existing Autotransformer(to be replaced) – Rudaky substation, September 2017



13. Substation building renovation - September, 2017



14. Fence of substation as a part of project enhancement works - September, 2017



15. Civil works, gravelling of the site - September, 2017



16. Wooden waste placed outside the substation boundaries, September 2017



17. Storage of wooden waste, September 2017



18. Workers equipped with PPE, September 2017