

Project Number: 2972 – PK, Tranche – III  
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## Islamic Republic of Pakistan

# Power Distribution Enhancement Investment Project (PDEIP) – Tranche – III Multi – Tranche Financing Facility (MFF)

Financed by the ASIAN DEVELOPMENT BANK

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**For** Pakistan Electric Power Company (PEPCO)  
Peshawar Electric Supply Company (PESCO)

**ABBREVIATIONS**

<b>ADB</b>	Asian Development Bank
<b>AJK</b>	Azad Jammu & Kashmir
<b>BPI</b>	British Power International
<b>CED</b>	Chief Engineer Development
<b>E&amp;SS</b>	Environmental and Social Safeguard
<b>EA</b>	Executing Agency
<b>EIA</b>	Environmental Impact Assessment
<b>EPA</b>	Environmental Protection Agency
<b>EPD</b>	Environmental Protection Department
<b>GOP</b>	Government of Pakistan
<b>GS</b>	Grid Substation
<b>IA</b>	Implementing Agency
<b>IEE</b>	Initial Environmental Examination
<b>PESCO</b>	Peshawar Electric Supply Company
<b>KV</b>	Kilo – Volt
<b>MOW&amp;P</b>	Ministry of Water and Power
<b>MFF</b>	Multi – Tranche Financing Facility
<b>NOC</b>	No Objection certificate
<b>PDEIP</b>	Power Distribution Enhancement Investment Program / Project
<b>PEPA</b>	Pakistan Environmental Protection Act
<b>PEPCO</b>	Pakistan Electric Power Company
<b>PMU</b>	Project Management Unit
<b>TL</b>	Transmission Line

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## Part 1. INTRODUCTION

### 1.1 PESCO

Peshawar Electric Supply Company Ltd. PESCO is a Public Limited Utility Company, established in 1998 under Companies Ordinance 1984 and is responsible for distribution of Electric Power within its territorial jurisdiction and presently serving approximately 2.10 Million Customers (Domestic) in the thirteen districts of KPK Province (Peshawar, Mardan, Swabi, Swat, D.I.Khan, Kohat, Haripur, Abbotabad, Manshera, Bannu, Nowshera, Charsadda and Muzaffarabad).

### 1.2 Directorate of CE (Development) / Project Management Unit

To carry out and handle investment projects PESCO has established Project Management under the supervision of Chief Engineer (Development). The PMU comprises of 4 sections.

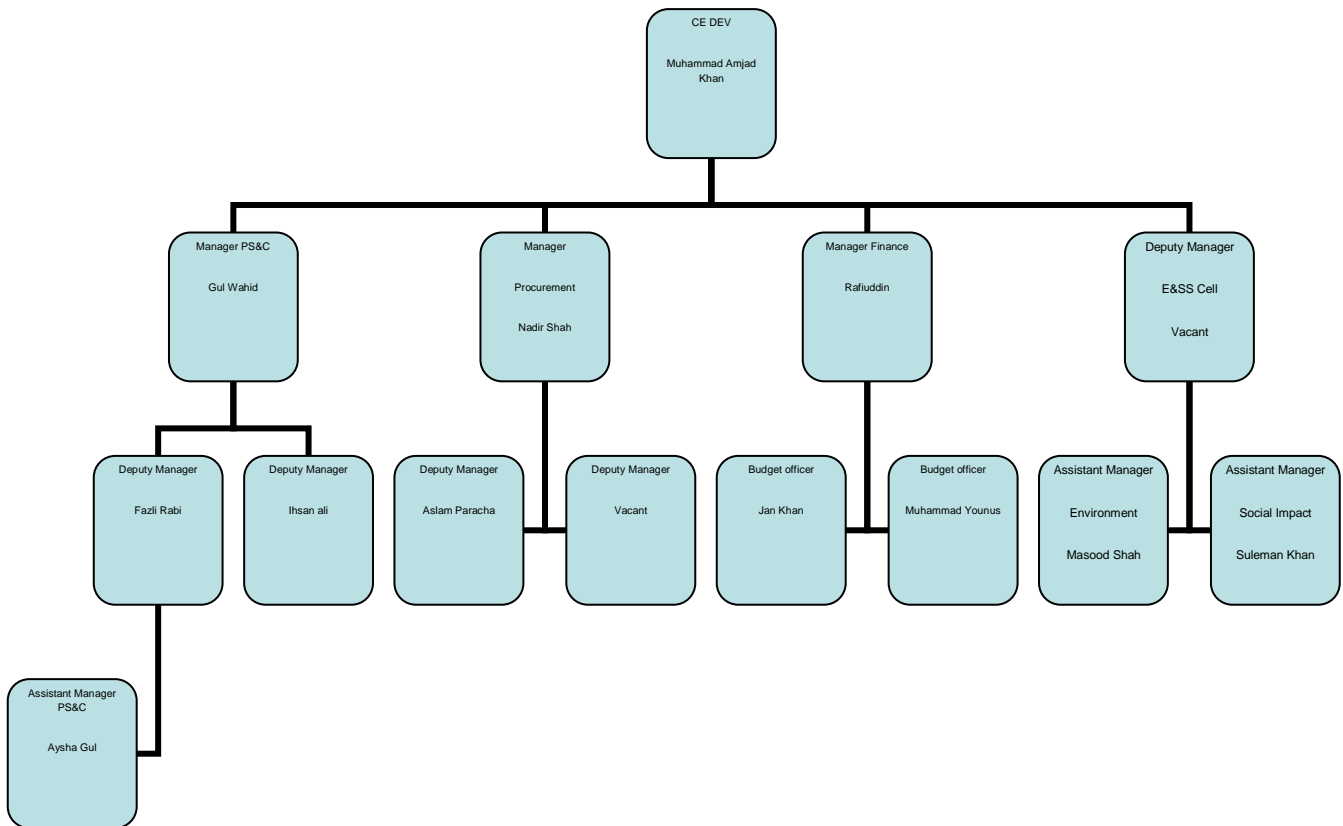
**Planning Scheduling & Coordination:** To take the responsibilities for (i) identifying and proposing the subprojects to PEPCO / Donor Agency for approval and financing, (ii) Scheduling and Monitoring (iii) preparing the necessary documentation in line with the statutory, corporate and Donor policies including quarterly reports (iv) coordinate with the consultants.

**Procurement:** To take care of all responsibilities and tasks related to procurement (goods, works and services) and for the activities related to material planning, preparation of bidding documents according to the requirement of the Donors, getting the evaluation done and for placing the orders after approval of the Donors, inspection and then transportation to the site. Arrange release of material thru CRR Karachi and final delivery to the site.

**Project Finance:** They are responsible for taking care of counterpart financing, funds flow arrangements, payments, recording and monitoring of both ADB & WB funds. Also, will establish, monitor and manage the imprest account and statement of expenditure (SOE) procedures. Furthermore ensure timely preparation of the annual audited project accounts.

**Environment & Social Safeguard:** To take care of all the responsibilities and tasks related to environment, land, and social (including involuntary resettlement and indigenous people) and provide oversight on occupational health, safety and environment safeguards in the working environment.

**Figure 1: Organizational Structure of PMU PESCO**



### 1.3 Power Distribution Enhancement Investment Program (PDEIP) – Tranche-III.

Government of the Islamic Republic of Pakistan (GoP) through Ministry of Water and Power (MOW&P) with assistance of Asian Development Bank (ADB) is implementing the Power Distribution Enhancement Investment Program (PDEIP) under Multi Tranche Financing Facility (MFF). This Program is part of the GoP long term energy security strategy. Pakistan Electric Power Company (PEPCO) has been nominated by Ministry of Water and Power (MOW&P) to act as the Executing Agency (EA) while Peshawar Electric Supply Company (PESCO) is the Implementing Agency (IA) for execution work in its service area. Program basic information is provided in **Table 1**.

**Table 1: Program Basic Information.**

The Program	Power Distribution Enhancement Investment Program (PDEIP). Multi – Tranche Financing Facility (MFF).
Subproject	Tranche – III subproject.
Sponsoring Agency	Government of Pakistan. Ministry of Water & Power (MoW&P).
Executing Agency	Pakistan Electric Power Company (PEPCO).
Implement Agency	Peshawar Electric Supply Company (PESCO).
Type of Financing	Loan amount US \$ 21.550 Million. Loan No. 2972 – PK; Tranche – III Subproject.
Loan Signing Date	September 09, 2013.
Loan Effectiveness Date	October 10, 2013.
Closing Date	June 30, 2016.
Date of Last ADB Review Mission	29 May 2016

Focal Person	Chief Engineer (Development), Project Management Unit , Peshawar Electric Supply Company (PESCO).
Focal Person for Environment & Social Safeguards	AM (Environment) & AM (Social Impact) Project Management Unit, Peshawar Electric Supply Company (PESCO).

The Power Distribution Enhancement Investment Program (PDEIP) – Tranche-III is designed to provide grid-connected customers with adequate and reliable supply of electricity. The rehabilitation, augmentation, and expansion of power distribution infrastructure will increase the reliability of supply to residential, agricultural, commercial, and industrial customers across Pakistan. A reliable electricity supply will lead to social and economic benefits and improved conditions for schools, hospitals, and social services, among others. The main components of the program are given as under:

- Conversion / Up-gradation of Grid Stations
- Extension of Power Transformers in existing Grid Stations
- Augmentation of Power Transformers in existing Grid Stations
- Construction of New Grid Stations

#### 1.4 Objective of the Program (PDEIP)

The main objectives of this Investment Program are; (i) improve power distribution infrastructure through system rehabilitation, augmentation, and expansion; and relieve the power system from distribution bottlenecks and constraints; (ii) enable continued operation and maintenance in accordance with best international practices; and (iii) the system will be capable of meeting peak demand, with electricity outages significantly reduced.

#### 1.5 Scope of the Work

PESCO Tranche – III subproject includes 02 Nos.of New substations, 02 Nos. of 66 KV conversion to 132 KV Substations, 08 Nos of Augmentation and 05 nos of Extension sub-projects. The detail scope of work of Tranche - III subproject is given below in table



Table 2: Detail Scope of Work.

**NEW 132kV Grid Station and Transmission Lines**

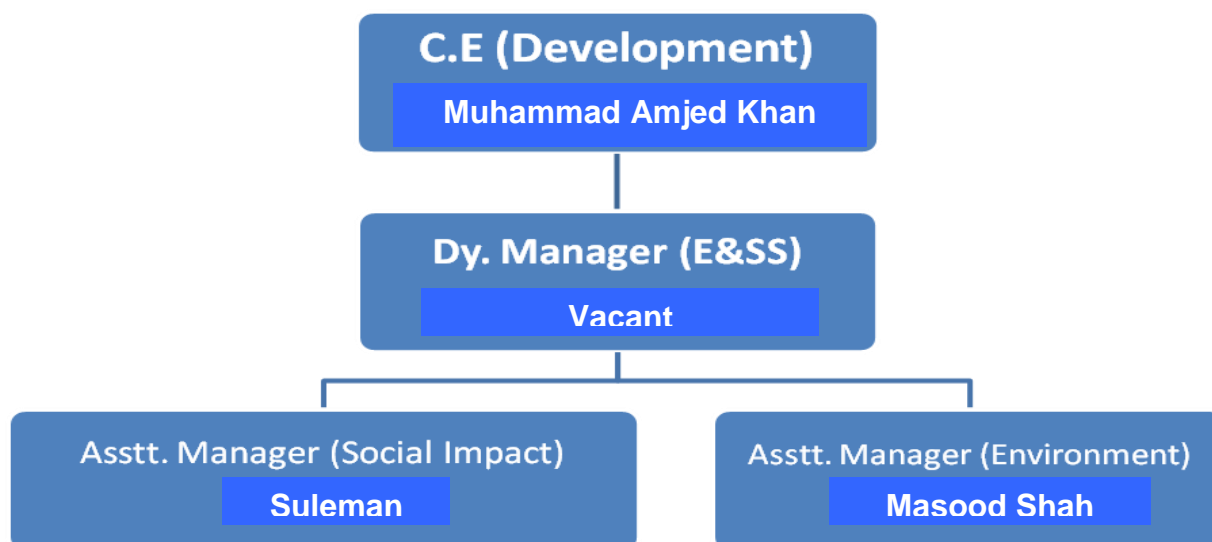
S.No	Name of Sub-Project	Type of Work	Scope of Work	Update Status
1	Construction of New 132 KV Sakhi Chashma Grid Station	New Grid Station	2x26 MVA P/TF	Civil Work is in Progress (Gantries foundations, Power transformer foundations, and switchyard) control room foundation has been completed.
2	Construction of New 132 KV Taru Jabba Grid station	New Grid Station	2x 26 MVA P/TF	Control room has been constructed, switchyard is almost completed, and trenches work is in progress.
3	132 KV Kulachi Grid Station	Conversion of 66 KV Kulachi to 132 KV Grid Station	1x26 MVA P/TF	Foundation work for power transformer switchyard is in progress
	132 KV DARABAN Grid Station	Conversion of 66 KV Draban to 132 KV Grid Station	1x26 MVA P/TF	Control room is almost 80% is completed and other foundation works are in process

**Augmentation/ Extensions**

<b>Sr. No.</b>	<b>Sub-Project</b>	<b>Scope of Work</b>	<b>Updated Status</b>
1-	132 KV Rehman Baba	1x40MVA ( Aug)	Commissioned 5/3/2016
2	132 KV Swabi	1x40 MVA (Aug)	Commissioned 30/3/2016
3	132 KV Bannu	2x40 MVA (Aug)	Commissioned 16/9/2015
4	132 KV DI Khan	1x40 MVA (Aug)	Commissioned 28/8/2015
5-	132 KV Kotal Town Kohat	1x40 MVA (Aug)	Commissioned 6/11/2015
6-	132 KV Jalala	1x26 MVA (Aug)	Commissioned 11/12/2015
7-	132 KV Jehangira	1x26 MVA (Aug)	Commissioned 24/4/2015
8-	132 KV Batal	1x26 MVA (Aug)	Commissioned 5/5/2015
9-	132 KV Dalazak	1x26 MVA (Ext)	Commissioned 21/1/2016
10-	132 KV Karak	1x26 MVA (Ext)	Commissioned 3/6/2016
11-	132 KV Tank	1x26 MVA (Ext)	Work in progress
12-	132 KV Hussai	1x26 MVA (Ext)	Commissioned 6/5/2016
13-	132 KV Timergara	1x26 MVA (Ext)	Commissioned 11/8/2016

## **1.6 Environmental & Social Safeguard Section - PMU**

The Environmental & Social Safeguard (E&SS) Section of PMU, PESCO provides an overall supervision and advisory services during the Pre - Construction phase, Construction phase & Post – Construction phase of the project. The E&SS also assists and advises GSC Directorate, Construction Directorate and other PESCO departments on environmental and social matters overall. Presently, the E&SS Section has one Environmental under the supervision of a Deputy Manager Environmental and Social Safeguard (E&SS). The organizational structure of E&SS – PMU PESCO is attached as below.

**Figure 2: Management Structure of E&SS – PMU – PESCO**

### 1.7 Present Status of the Project.

1. Under Tranche-III Sub-projects Civil Work of Taru jabba Grid Station is almost completed 85%, while sakhi chashma site foundation work is completed and the rest civil work is in progress.

To check level of compliance of EMP,E&S Cell of PMU paid visit to taru jabba site, where EMP implementation categorically checked, the outcome of the monitoring visit are as under,

1. They don't have recording and reporting system on site.
2. Labours welfare facilities are not enough sufficient
3. Sign boards are not found on proper locations
4. Waste management plan, traffic management plan, emergency and safety plan submission to E&S Cell is outstanding.
5. Sample of air water for lab analysis has been collected and results are still outstanding
6. Regular capacity building activities on site is need of the day.
7. Contractors E&S Cell is deficient in resources, which become hurdles in implementation.

## **ACTION POINTS**

E&S Cell of PESCO guided and oriented M/s Siemens staff for effective implementation of EMP, including the following details

1. Develop waste management plan, sketch has been drawn from waste generation segregation to final disposal.
2. Emergency plan is elaborated in detail.
3. Traffic management plan is explained.
4. Landscaping is enlightened.
5. Cut-off date for establishment of site office is given 23<sup>rd</sup> January 2017.
6. Usage of First aid facility and fire fighting equipment's are discussed in detail.
7. Noise meter availability on site and maintenance of its recording on regular basis are discussed.

**1.8 Monitoring Indicator of Part – I set by ADB.**

Description of Indicator	Remarks
Construction activities and Project Progress during previous 6 months.	Tranche-III Sub-Projects are Physically launched.
Changes in project organization and Environmental Management Team.	Posts of Dy. Manager (E&S) is Still vacant and AM (Social) is hired and AM (environment) is of the relevant experience and educational background.
Relationships with Contractors, owner, lender, etc.	E&S Cell of PMU regularly hold meetings with contractors, the focus of the meetings are to build the capacity of contractors on effective EMP implementation, after meetings recommendations and action points are discussed and the concise minutes of the meeting are then endorsed to the respective contractors.

## Part II ENVIRONMENTAL MONITORING

### 2.1 Monitoring.

Environmental Monitoring of the projects carried out by E&SS Section, PMU PESCO for the smooth and effective implementation of EMMP ON 3<sup>rd</sup> January 2017 to check level of compliance, so deficiencies identified and contractor guided and directed for implementation, as the condition was very worst, which followed by External Monitoring visit from SMEC Int. on 6 June 2016, during this visit it is found that most of the deficiencies were addressed by contractor, But still area for improvement is there.

### 2.2 Monitoring Indicator of Part – II set by ADB.

Description of Indicator	Remarks
Summarizes the previous six months monitoring data and provide explanations of any instances where environmental standards or guidelines are exceeded.	Environmental Monitoring of the projects carried out by E&SS Section, PMU PESCO for the smooth and effective implementation of EMP ON 3 <sup>rd</sup> January 2017 to check level of compliance, so deficiencies identified and contractor guided and directed for implementation, it is observed that after regular monitoring of PMU E&S Cell improvement is observed.
Noise and Vibration. Water Quality. Air Quality. Flora and fauna monitoring.	Samples has been taken and send for analysis to PCSIR Lab Peshawar, the result of that samples are still awaited.

## Part III ENVIRONMENTAL MANAGEMENT

### 3.1 Environment Documents (IEE / EIA Reports)

PESCO PDEIP Tranche – III Projects has been classified as *Category B Project* in accordance to ADB Environment Policy (2002) and ADB Environmental Assessment Guidelines (2003). The project falls under Schedule – II of PEPA Act, 1997, which requires Environmental Impact Assessment (EIA) to be carried out for the project.

This Office prepared Draft IEE reports for tranche III, submitted to SMEC Int. and SMEC after getting approval from ADB submitted a consolidated EIA report back to this office. On February 26<sup>th</sup> 2014 the said EIA report was submitted to EPA Peshawar. After reviewing the report, DG EPA officially rejected the report with the observation that separate EIA report for each sub-project should be submitted as consolidated EIA report is not acceptable. This office while in its correspondence told to the officials of EPA that PESCO Tranche-III sub projects fall under category-B projects that have negligible adverse impacts on natural environment but EPA did not agree. Finally PMU PESCO arranged a meeting of SMEC Environmental Expert with DG EPA Peshawar on October 20, 2014; in the said meeting DG EPA advised to submit only two EIA reports that for the construction of New 132 KV Sakhi Chashma & Construction of New 132 KV Taru Jabba Grid Station while the Two Nos.of conversion of 66 KV Kulachi to 132 KV and 66 KV Draban to 132 KV Grid stations have been waived off from getting NOC.

At present position we have obtained NOC (From EPA KPK) for taru jabba and sakhi chashma site

### 3.2 Awareness & Trainings:

On each and every visit of project site, E&S Cell Properly orient contractors staff on EMP in detail.

### 3.3 EMMP as a part of bidding Documents

Environmental Management & Mitigation Plan (EMMP) & Monitoring Plan from the approved EIA Report has made part of the bidding documents of civil works of Tranche – III Subprojects.



### 3.4 Clauses in the Bidding Documents

- **Employer's Requirement / Supplementary Information:**

**SI-03. Environmental Issues:** The Contractor shall comply and carry out all the monitoring and mitigation measures as set forth in the Environmental & Social Management Plan (EMP). The EMP & Environmental Monitoring Plan is attached as Annexure with bidding document.

- **General Condition of Contract:**

J. Protection of Environment

**CLAUSES TO BE ADDED REGARDING ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN (EMMP) AND LAND ACQUISITION AND RESETTLEMENT PLAN (LARP) IN BIDDING & CONTRACT DOCUMENTS OF THE SUB-PROJECTS TO BE FINANCED BY ADB UNDER TRANCHE-II.**

The contractor will:

- (a) Be responsible for the implementation of Environmental Management and monitoring plan (EMMP) and land acquisition & resettlement plan (LARPs).
- (b) Engage/ hire an "Environmental Inspector" who will liaise and coordinate with PESCO environmental and social cell (PESC) in order to ensure compliance with the proposed mitigation and monitoring measures required under EMMP and LARP, necessary guidance in this respect will be provided to environmental Inspector by PESCO environmental and social cell (PESC).
- (c) Fully restore pathways, other local infrastructure (sewerage line, water transporting system/ pipe, rain water drainage system etc) damaged due to construction activity at the project site and agricultural land to at least pre-project condition upon the completion of construction.
- (d) Provide a written notice regarding any unanticipated environmental risk or impacts that arise during implementation of the project and were not considered in the IEE, EMP and the LARP.
- (e) Obtain NOC or compliance certificate from PESCO environment & social cell regarding effective and successful implementation of EMP & LARPs prior to claim any payment regarding civil works of grid station and transmission line.
- (f) Comply with all applicable laws (Pakistan Environment Protection Act PEPA 1997, Labour Laws) of the country and pertinent occupational health and safety regulations.
- (g) Try to provide the optimum employment opportunity to women living in the vicinity of the project area and refrain from child Labour.

- (h) Disseminate information at work sites regarding risk of transmissible diseases (HIV/AIDS & Hepatitis) for the workers employed during construction work and take adequate/ proper measures to protect workers from potential exposure to these diseases.
- (i) Avoid discrimination between the wages of benefits of male and female workers for work of equal value.

In case of non-compliance with mitigation and monitoring measures of EMMP and LARPs, the employer has the right to suspend work and withheld payments till the remedial measures. Any delay caused by the non-compliance of the mitigation and monitoring measures by the contractor will be on the account of the contractor and will be liable to pay penalty up to 10% of the total cost of contract and no extension of time will be allowed to the contractor.

- **Special Condition of Contract:**

9.	Contractor's Responsibilities
9.8	<p>The Contractor shall comply with all applicable national, provincial, and local Environmental laws and regulations.</p> <p>The Contractor shall</p> <p>(a) Establish an operational system for managing environmental impacts.</p> <p>(b) Carry out all of the monitoring and mitigation measures set forth in the Initial Environmental Examination ("IEE") and the Environmental Management Plan (EMP) attached hereto as Appendix 8 / Annexure - C</p> <p>(c) Allocate the budget required to ensure that such measures are carried out. The Contractor shall submit to the Employer quarterly report on the carrying out of such</p>

*Contract Forms / Contract Agreement:* The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract (Reference GCC Clause 2):

- (a) This Contract Agreement and the Appendices hereto
- (b) Letter of Bid and Price Schedules submitted by the Contractor
- (c) Special Conditions
- (d) General Conditions
- (h) Specification
- (i) Drawings

**(f) Environmental & Social Mitigation Plan****(g) Environmental Monitoring Plan**

- (j) Other completed Bidding Forms submitted with the Letter of Bid
- (k) Any other documents part of the Employer's Requirements.

**3.5 Monitoring Indicator of Part – III set by ADB.**

Description of Indicator	Remarks
EMS, SSEMP and work plans. Report on delivery of documents, required amendments etc.	Contractors are asked for the submission of SSEMPs for their respective projects, But still awaited at their end.
Site Inspections and audits – summarizes the number and type of site visits	Lack of Fleet Facility for E&S Cell hindering the said task.
Non-compliance notices – summarizes the details on the number of notices given out and the issues covered. Summaries the ranking of issues.	Many reminders have been served to M/S Siemens.
Corrective action plans - report on timeliness of preparation and completion	Action plan has been send to contractor and discussed for implementation.
Consultation and complaints – report on any consultation undertaken and list any complaints received.	During Monitoring Visit all the contractors were Briefed and Guided on the Prescribed Guidelines and Protocols for their respective Projects.

**NOTE:**

In ESIC Section of PMU PESCO Deputy Manager Position is Vacant, there is no vehicle for internal monitoring.

The above mentioned obstacles create hurdles in the effective implementation of Environmental measures in PMU PESCO Projects.

**SNAPSHOT**

