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Aide Memoire – June 2018

Project: **Power Grid Improvement (PGI) Project** Project Stage: Implementation

Team Leader(s): Leopold Sedogo

Country: Lao PDR

Project Development Objective

The project development objective is to help improve efficiency and reliability of power distribution in the selected load areas served by EdL.

Key Project Data

Project Number	P149599	Approval Date	23 June 2015	Effectiveness Date	31 December 2015
IDA Credit Amount	US$30 million	IDA Disbursement	61%	Closing Date	31 March 2020
PDO Rating	Satisfactory	**IP Rating**	Moderately Satisfactory		

Introduction

1. A World Bank Mission[1] visited Lao PDR, from June 25-28, 2018 to carry out an implementation support mission for the Power Grid Improvement Project (PGI). This aide-memoire summarizes the findings, recommendations and agreements reached during the mission and is subject to confirmation by the World Bank management. The aide-memoire will be publicly disclosed. The mission would like to express its gratitude for the hospitality provided by the Ministry of Energy and Mines, the Ministry of Finance and the implementing agency, Electricite du Laos (EdL).

Key Findings

2. **Progress towards achieving the PDO** is *Satisfactory*. The PDO continues to be relevant; progress against the PDO is supported by progress on implementation and evidenced by the PDO indicator on loss reduction (21% vs 20% target) and the SAIFI (improved reliability currently anticipated from network improvement in the absence of baseline data). Procurement of major goods and technical assistance packages have been completed and under implementation to help improve efficiency and reliability of power distribution in the Xaythany District. Various training sessions were carried out to strengthen EdL institutional capacity to utilize new technologies in addressing distribution losses and improving power grid efficiency.

3. **Disbursement**: As of July 2018, the disbursement rate stands at 61% with 85% of contract commitment of project's total budget. The disbursement is expected to increase steadily in the coming months as the main three contracts on the Advanced Metering Infrastructure (AMI), the Financial Management Information System (FMIS) and the distribution improvement activities are being implemented.

4. **Savings/Unallocated budgets and additional activities for further support:** Since the mid-term review in March this year, EdL has yet to finalize the additional activities to be financed by the US$3.5 million savings gained from the AMI budget. It was agreed, however, that EdL will work on the list of additional activities and share with the Bank team for further discussion and finalization by end of July 2018. The additional activities may be to: (i) implement the payroll module which is

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not included in the FMIS contract; (ii) procure safety equipment; and, (iii) prepare the specifications for the billing system (not included in the FMIS) and eventually the design of grid improvement in other districts. These activities are subject to confirmation of the needs and EdL's management endorsement.

5. **Lift work suspension:** Works related to the distribution upgrade (contract G01) was suspended following the last MTR mission pending the contractor compliance with all recommended safety measures. The mission was pleased to lift the suspension following the field visit (during this mission and site visit attended by both environmental and social safeguards experts) where the Bank team could witness measures taken by the contractor to achieve compliance. EdL has also committed to supervise more closely implementation on the ground and will also recommend a list of safety equipment to be procured through the PGI.

Detailed Project Status

Component 1: Smart metering, distribution improvement and distribution losses

6. **Supply and installation of distribution improvement and automation equipment:** The contract for the supply and installation of grid equipment was signed in January 2017 with Hunan Machinery & Equipment Imp. & Exp. Corp. Up to 366 km of distribution line (127km of 22kv and 239km of 0.4kv) will be rehabilitated along with upgrading of conductors and transformer capacities, placement of capacitors for reactive power and voltage control, installation of load break switches and reclosers, etc.

7. It was reported that, as of the mission, 127 km of 22kv conductors have been upgraded from 150mm2 to 240mm2, 873 concrete poles, 94 transformers, 63 reclosers, 84 load break switches and 35 capacitor banks installed. Other works such as the 239 km of 0.4kv conductors, low voltage capacitor bank installation, and the new concrete pole installation for the upgrade transformer for the 0.4kv were put on hold until meeting safety compliance. Following the lift of work suspension, according to the contractor schedule, completion is expected in the first quarter of 2019.

8. **Supply and Installation of Advanced Meter Infrastructure System:** Lanexang Construction and Trading Import Export Sole Co. Ltd has been selected through an ICB for the Supply and Installation of Advanced Meter Infrastructure System; the contract was signed on 18 January 2018.

9. EdL has informed the team that a supplier-credit contract valued US$100 million, financed by the Industrial and Commercial Bank of China, was signed with Huawei for the supply and installation of advanced meter infrastructure that will complement the project activity. EdL called on the consultant MBMC who drafted the specifications of the project's advanced meter infrastructure system to provide support to ensure compatibility and avoid any redundancy between the two activities. The preliminary results show that the main recommendation is to replace the WIMAX deployment by Fiber Optic. The project is expected to submit a request for contract amendment to replace WIMAX with Fiber Optic, with a full technical assessment report to the Bank for clearance within July 2018.

10. Several other equipment such as transformer testing equipment, meters test bench, meters testers etc. have been procured and trainings have been imparted. The procurement of advanced meter

infrastructure system is also completed. Supply and installation of advanced meters is expected to start in September 2018 and completed by October 2019. The determination of the SAIFI baseline should have been completed by then by the consultant MBMC in order to provide the monitoring reference.

Component 2: Electric utility information system

11. **Corporate Financial Management Information System.** The project has successfully procured SAP-based financial management information system under ICB Package G-05. The contract was signed with FPT Information System Corporation Vietnam for US$4.37 million in December 2016. The work is currently under implementation with the support of the Corporate Solution Consultant.

12. In the first phase of the project implementation, end user trainings and data migration was completed and the system is ready to go live. The system role out plan is under discussion for 19 sites of EdL. Procurement of networking equipment for EdL is ongoing. Additional procurement of printers for all branches of EdL and laptops for key users is will be completed in August 2018. FMIS implementation progress is on track.

13. The mission met EdL and its contractor, FPT Information System, for SAP FMIS implementation. EdL, FPT and Corporate Solutions will finalize role out strategy in beginning of August 2018 which will include:

    - End-user training for 19 remaining sites in September 2018;
    - Data Migration Activities and Go-live will be centralized in 5 Site Groups including: (a) first role out at three key sites in October 2018, (b) second role out at two sites in November 2018, and (c) decommissioning of the current FMIS in December 2018.

14. The mission requested EdL (supported by FMIS consultant Corporate Solutions) and FPT to engage EdL branch personnel as much and as soon as possible. As for cutting off the current system, it will be useful to have a clear back up plan in case of any problems post cut off and to avoid disruptions during December holidays season.

Component 3: Institutional capacity building and project implementation support

15. Procurement of the power distribution equipment testers and consultancy support for Components 1 and 2, including environmental and social safeguards aspects, have all commenced. Various technical training and other capacity building activities have been carried out to strengthen EdL institutional capacity to utilize new technologies in addressing distribution losses and improving power grid efficiency and support project implementation. Procurement and Project Management trainings were completed which included trainings on STEP and new procurement framework. Project Management and Procurement capacity building activities will be continued in future to transfer and sustain knowledge. The training and capacity building plan is attached as Annex 4.

PGI Procurement

16. **Procurement Performance:** Overall, procurement performance of the project is considered "**Highly Satisfactory"**. Contractual commitments at US$ 26.2 million (87%) with 30 months elapsed since project started. The project implementing agency has so far completed procurement of total 17 packages, there is only one new proposed goods package not undertaken now.

17. **Procurement Plan (PP):** EdL will submit a cost table for additional activities and revised procurement to the Bank for its review and no objection by end of July 2018.

18. **Post Review:** The mission has conducted post review and did not find any issue from the post review.

PGI Financial Management

19. **The Financial Management Performance:** The Financial Management performance of the project remained at Moderately Unsatisfactory. Although some actions have been taken (i.e. updated summary of commitment, updated budget, revised IFR and updated fixed asset register), the provisions of such documents were made later than the agreed date and improvements to the information contained in such documents are required.

20. Other critical actions such as refund of inadequately supported expenditure has not been processed. It was agreed that refund will be made to the Designated Account no later than Friday July 13, 2018. Documentation of expenditure has not been regular. It has been three months since the expenditure was reported to the Bank and DA replenished. Reporting of expenditure and replenishment to the DA should be made on a regular basis to avoid shortages of funds.

21. It has also been agreed that various monitoring registers such as contract commitment and fixed asset register should be regularly updated with sufficient information. Contract commitment register will be updated and shared with the Bank team by June 20, 2018. This will be used to facilitate discussion on additional activities.

22. The project was also reminded of the deadline for submission of the audit report and IFR that is June 30 and August 15 respectively. The audit report is to be disclosed on the EdL's website no later than one week of submission of report to the Bank. It was also agreed that the project will review and update the asset register and share with the Bank team together with the submission of the IFR.

23. **Disbursement**: As of July 16, the total disbursement rate is 61.17% or US$18,352,566.85. Total fund available as of July 16 exchange rate was US$ 11,650,019.15. Although the exchange rate of SDR to USD is on the rise, the project is strongly recommended to provide for a buffer in the budget just in case of SDR depreciation and to continue monitoring the available undisbursed funds on a regular basis by checking the information in Client Connection. The Project should also consider any commitments and undocumented expenditure to arrive at the best estimated available funds.

Environmental and Social Safeguards

24. **The environmental and social safeguards performance** of the project is upgraded to ***Satisfactory***. EdL has taken actions to address the safety issues that were raised by the Bank team during MTR mission. EdL officers conducted two trainings on safety (March 26, 2018) and Environmental and Social Management (May 17, 2018) to all contractor workers. About 100 workers attended the two

training programs. Double safety belts, PPEs have been provided to workers working at height and the workers were trained on how to use them. Voltage detector has also been provided to construction team to double check electricity cut off before work commencement. The mission was informed that the work process is strictly followed the EdL working standard, EMP, WB and other government relevant regulations. The construction teams are working closely with EdL Xaythany team and under EdL PGI team advisory. Full environmental safeguards assessment is attached in Annex 5, and Annex 6 is the project progress report on G01.

25. The mission is pleased to find that EdL took the above actions to comply with safety requirements as well as to avoid environmental and social issues from the construction activities.

26. The project confirmed that no: (i) trimming or burning of trees and bushes occurred under the 22kV distribution line/Row; (ii) herbicides were used for clearance purpose; (iii) PCB based transformers were replaced; (iv) road accident was recorded; and (v) fire hazard occurred. It was also noticed that waste from construction activities are properly managed, and safety and warning signs are properly put in place. The contractor workers received training on Safety and Environmental and Social Management and related Government regulations. The EMP was translated into Lao and displayed at the campsite for everyday brief meeting prior to work. An organization chart with project team members' contact numbers and emergency team structure including firefighting police station, and nearby hospital contact person are also provided at camp site.

27. **Environmental Risk Rating**. The environmental risk rating is moderate, based on the actions taken by EdL to (i) comply with safety requirements and provide environmental and social management training to all construction workers; (ii) make sure that contractors use adequate safety equipment; and (iii) closely monitor construction activities.

28. **Follow up on Recommendations during MTR mission** – To minimize the environmental impact from the MTR findings and avoid accident, the mission noticed that mitigation measures were conducted (refer to Annex 5, 6 and 7).

29. However, for a long-term plan, it would be good for EdL to collaborate with dedicated agencies to enforce regulation and policy related to the right of way of electricity distribution. Public awareness campaign on safety practices for properties close to the power grid should be conducted.

30. An assessment of the sufficiency and good condition of safety equipment/Personal Protective Equipment (PPE) for project equipment installation and construction activities as well as assessment of EdL safety procedures, operation manuals and forms for improvement are underway. EdL will submit their proposed plan to purchase safety equipment and PPEs to the Bank after finalizing the saving left. For procurement of safety equipment, PPE and/or crane, ESHS requirements should be included in procurement package. The bidder is required to comply with safety requirement and provide proper training on how to effectively use the safety equipment, PPE and/or crane in a safety manner.

31. The Project remains in compliance with the World Bank's policy on involuntary resettlement, as the environment office has successfully managed the negotiation and documentation of voluntary land donations. The overall social performance of the project remains satisfactory, with the recommendations made during the MTR mission (on grievance redress, communication, reporting

on social issues etc.) having been addressed. Likewise, the social risk rating of the project remains moderate due to the limited amount of land acquisition and labor influx involved.

32. ***Land Acquisition and Resettlement Impacts:*** The EdL Environment Office has successfully managed the land donation process for this project. They have negotiated access to the land of 51 property owners in 14 villages. This was necessary for the installation of 151 poles. It was confirmed that each of the affected properties were held by owners who had full title, although a number of them were in the reserved areas for irrigation canals or roads. The voluntary donation agreements were appropriately documented in the voluntary land donation form included in the resettlement policy framework, which included a section screening for impacts on productive assets other than land. Previous missions confirmed that appropriate consultations and disclosure were conducted at the village level. It was confirmed during the mission that pole installation did not impact private structures, as alternative locations were agreed upon to avoid disruption. It further confirmed that no privately-owned fruit trees were impacted by project activities.

33. ***Stakeholder Engagement and Grievance Redress:*** In terms of public engagement and grievance redress, no complaints have been registered with the environment office to date. This is despite the fact that there have been an estimated 10 planned service interruptions since the beginning of works in September 2017. According to the Environment Office, communication on service interruption is handled by the district office and district authority, and that the district office team directly informs the affected communities through written notices and public announcements. The communication system was documented in the latest progress report, indicating that service interruptions were communicated effectively using social media. Notice boards also provided information on who to contact regarding potential grievances. In terms of labor influx, the impacts are moderate, given that works are taking place in a peri-urban area, and that a camp has been provided to workers coming from outside the community.

EdL Financial Action Plan

34. The Bank remains concerned with EdL Group's financial situation, which deteriorated further than 2016. Following multiple years of large investment and borrowings and below cost recovery electricity tariffs, EdL's debt level has risen to the point such that EdL cannot meet its debt service obligations. As such, EdL is currently not in compliance with financial covenants under the IDA Credit and IFC loan to EdL.

35. MEM/MOF/EdL's endorsement of the Third Financial Action Plan for Sustainability of EdL and the Power Sector (3rd FAP) has delayed from 2017. The mission was informed by EdL that the draft financial action plan has been further revised with inputs from MEM and EdL. The next steps action is to report the present draft to MEM management and then submit to MOF for further discussion and endorsement. The mission requested MEM/MOF/EdL to finalize and endorse the 3rd FAP soon and prior to the enactment of the new electricity tariffs, expected now in August 2018. The new tariffs would help increase revenue by reducing untargeted subsidies, while limiting impact on low-income customers. The new tariffs would also improve cost allocation to export customers, which help limit tariff increases for domestic customers.

Next Steps and Actions

Overall Project Implementation Actions	Responsibility	Date	Status
Endorsement of the Third Financial Action Plan for Sustainability of EdL and the Power Sector	MEM/MOF/EdL	July 2018	Delayed
Financial Management Actions			
Process and provide evidence of refund (amount USD5,021) for Study Tour in Singapore and Meeting in Vietnam	Accounting and Finance Department of	No later than July 13, 2018	Submitted
Submit project audit report and management letter for FY17	Accounting and Finance Department of EdL/ PGI FM team	No later than June 30, 2018	Submitted
Disclose the audit report on the EdL website	Accounting and Finance Department of EdL/ PGI FM team	Within one week of submission of reports to the Bank i.e. by July 6	In Progress
Prepare and submit commitment record/register	PGI team	Not later than July 20, 2018	Submitted with delays
Submit IFR covering the period from Jan to Jun 2018	Accounting and Finance Department of EdL/ PGI FM team	Not later than August 15, 2018	In Progress
Submit updated fixed asset register	PGI team	Not later than August 15, 2018	In Progress
Social and Environmental Safeguards			
Submit list of proposed safety equipment	EdL/PGI FM team	September 15	In Progress

List of Annexes[2]:

1. List of People Met
2. Mission Objectives
3. Result Framework
4. Training Capacity Building
5. Environmental Safeguards Assessment
6. G01 Progress Report
7. Safety Training
8. Draft 3rd FAP

[2] Annexes 1 to 8 are available upon request to Mr. Thongkham Chanthavong, Program Assistant at tchanthavong@worldbank.org