３．終了時評価調査結果要約表（英文）

Summary of Evaluation Results

<table>
<tr><td colspan="3">I. Outline of the Project</td></tr>
<tr><td colspan="2">Country：Lao People's Democratic Republic</td><td>Project title：Project for Improvement of Power Sector Management</td></tr>
<tr><td colspan="2">Issue/Sector：Energy</td><td>Cooperation scheme：Technical Cooperation Project</td></tr>
<tr><td colspan="2">Division in charge：Laos Office</td><td>Total cost：296.8 million JPY</td></tr>
<tr><td rowspan="2">Period of Cooperation</td><td rowspan="2">(R/D): July 16, 2010

*Project period:
October , 2010 – March, 2013</td><td>Partner Country's Implementing Organization：
Ministry of Energy and Mines(MEM)</td></tr>
<tr><td>Supporting Organization in Japan：
Chubu Electric Power Co., Inc.
The Kansai Electric Power Co., Inc.</td></tr>
<tr><td colspan="3">Related Cooperation：(1) The Project on Electric Power Technical Standard establishment in the Lao People's Republic Democratic (JICA: May 2000 to April 2003) and
(2) The Project for Lao Electric Power Technical Standards Promotion (JICA: January 2005 to January 2008)</td></tr>
<tr><td colspan="3">1 .Background of the Project
In Lao People's Democratic Republic (Lao PDR), the power sector plays an important role in national socio-economic development. The improvement of administrative structures and legislative provisions are key factors for supply of stable and safe electricity in Lao PDR. Based on the requests of the Government of Lao PDR, JICA provided technical assistance to Lao PDR through the above two projects. First project mainly assisted to prepare the Lao Electric Power Technical Standards (LEPTS). Second project mainly assisted to produce Guidelines, Safety Rules and Example/Inspection Manuals for LEPTS and conducted trainings for Department of Electricity (DOE), Provincial Department of Energy and Mines (PDEM) and Electricité du Laos (EDL). LEPTS is the national regulation and needs to be adapted by developers such as EDL and Independent Power Producer (IPP). The awareness of LEPTS, however, remains low between stakeholders.
Considering these situations in power sector in Lao PDR, the Project titled "The Project for Improvement of Power Sector Management" (the Project) started to enhance DOE in the national level and PDEM in the provincial level as regulatory agency for a period of two years and six months. This terminal evaluation of the Project has been conducted in March 2013 before the end of the Project.
In addition, Electric Power Management Division (EPMD), as the primary counterpart organization, of</td></tr>
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Department of Electricity (DOE) under MEM has been promoted to Department of Energy Management (DEM) in May, 2012. Therefore, from now on, an abbreviation "DEM" will be used instead of "DOE".

2.Project Overview

(1) Overall Goal:

The number of electric power facilities that suit LEPTS increases and the electric power is stably supplied.

(2) Project Purpose:

Regulatory function of the electric power sector is strengthened.

(3) Outputs:

Output 1: DEM's examination and inspection capacities are enhanced.

Output 2: The capacity of DEM for supervising PDEM is enhanced.

Output 3: Understanding on LEPTS in target provinces is improved.

(4) Inputs

Japanese side :

Short-term Expert	16 persons	Equipment	0.8 million Yen
Trainees received	14 persons	Local cost	6.7 million Yen
		Total Cost	7.5 million Yen

Lao's Side :

Counterpart 23 persons

Land and Facilities, Transportation and accommodation cost for examinations &inspections

II. Evaluation Team

Members of Evaluation Team	Mr. Susumu YUZURIO, Team Leader JICA Laos Mr. Kunio NISHIMURA, Evaluation and Analysis ICONS Inc.	
Period of Evaluation	March 4, 2013 - March 22, 2013	**Type of Evaluation:** Terminal Evaluation

III. Results of Evaluation

1. Confirmation of achievement

(1) Activities

All activities were almost conducted on schedule based on Project Design Matrix (PDM).

(2) Outputs

1) Output 1: The Output 1 has been achieved.

The instructions for practical examination and inspection were finalized in July 2012. Based on LEPTS and Guideline, one examination and 12 inspections have been conducted. 11 field OJTs were also conducted. According to these actual experiences, DEM's capacity has been enhanced compared with the start of the Project.

2) Output 2: The Output 2 has been almost achieved.

The practical examination and inspection instructions have been formulated and partly translated into Laotian language by C/P. Casebooks have been formulated and continuously revised. Through such works, the capacity of DEM for supervising PDEM has been enhanced.

3) Output 3: The Output 3 has been achieved.

PDEM's understandings on LEPTS in three target provinces have been improved by seminars (lectures, actual site training).

(3) Project Purpose: Project Purpose has been achieved about half (50%).

DEM achieved to examine one B/D document and to conduct 12 inspections and DEM's regulatory functions has been strengthened. PDEM's understanding on LEPTS has been improved.

(4) Overall Goal: Uncertain

It is uncertain to achieve Overall Goal because it takes long time to realize Overall Goal.

2. Summary of Evaluation Results

(1) Relevance: High

The Seventh Five-year National Socio-Economic Development Plan (2011-2015) as same as the Sixth National Plan (2006-2010) aims to achieve socio-economic development, the industrialization and the modernization. Stable and safe electricity is needed to export for getting foreign currency and to eradicate poverty of Lao people. As it is necessary to be followed by IPP and EDL, it is appropriate that the Project appointed to DEM/MEM, regulatory organization, as C/P. The Project is consistent with "Infrastructure/ Environment" as one of four priority areas of "Japan's Country Assistance Program for the Lao PDR". The adopted approach for project implementation focusing on strengthening technical and supervisory capacity of the central government and practical experience of the provincial governments are also considered to be appropriate.

(2) Effectiveness: Low

Some of the indicators for the Project purpose were not satisfied. The Project outputs were considered to be contributing to attaining the Project purpose effectively as examination and inspection capacities of DEM/MEM were enhanced and practical experiences of PDEM who attended the seminars were also improved. On the other hand, items corresponding to some indicators of the Project purpose were not included in the activities as well as outputs. This resulted in unsatisfactory achievement of the Project purpose indicators.

(3) Efficiency: Moderate

All Outputs have been almost achieved by activities of the Project. The quality, quantity, timing and cost of Inputs from Japanese and Lao side are almost appropriate and most of Activity have been conducted on schedule and contributed to the Project. However, some activities as well as outputs corresponding to the indicators of the Project purpose were not included, and some experts' experiences and communication skills appeared to be insufficient according to counterpart personnel.

(4) Impact: Moderate

A logical leap was found between the Project purpose and the Overall goal. It might be difficult to evaluate the impact as the Overall goal is far beyond the project scope. Therefore achievement of Overall goal is uncertain to be realized even after the completion of the Project. As power project development takes time from planning to construction and operation, it needs long time to achieve Overall goal. Furthermore there are a lot of issues such as EDL, capacity of PDEM, allocation of budged for modification of LEPTS and Guideline, etc. to achieve Overall Goal.

(5) Sustainability: Moderate

As Lao government mentions importance of electricity in National Socio-Economic Development Plan as export commodities and means of poverty reduction, the power stations politically play crucial roles in Lao PDR. Because stable and safe power supplies by IPP and EDL are needed, it is expected to continuously strengthen regulation such as LEPTS. Promotion of DEM showed the Government's commitment to strengthen regulation in Lao PDR. DEM is expected to revise LEPTS and relevant documents on their own but may not have enough capacity to do so.

3. Conclusion

The Project purpose was fulfilled for DEM/MEM part however, some indicators related to the PDEM

and EDL were not satisfied as capacities of DEM/MEM were limited. This is because outputs and activities necessary to enhance corresponding indicators of the Project purpose were not appropriately set, and amendment of these items were not made during the Project implementation.

Throughout the Project, it was confirmed that technical regulation on power facilities was one of the top priorities of the Lao Government. The outputs were duly achieved through on-schedule and appropriate input by both Japanese and Lao sides. The most significant issue of the Project was to increase practical experiences of DEM on examination and inspection, and this was obtained utilizing relevant documents and aid materials produced in the past cooperation. The approach of technical cooperation, where the experts step behind and let the C/P do their work by themselves, worked positively to enhance ownership and self-confidence of C/P.

4. Recommendations

1) Make basic policy related to the regulation framework and a mid- / long-term plan

The development of the power sector is necessary for Lao socio-economic development, and the electricity plays an important role as one of commodities of export and contributes to the reduction of poverty in Lao PDR. Therefore, it is necessary that the Lao Government set up an effective inspection and technical regulation taking into consideration the limitation of their institutional capacities. A mid- and long-term plan including implementation of regulation by DEM, introduction of private sector standard, conducting capacity building of PDEM, etc. in the power sector should be designed.

2) Modify LEPTS and related materials based on Law of Electricity

Based on LEPTS, the related materials such as Guideline & Safety Rules and Instructions& Casebooks were developed. As circumstances related to LEPTS are changing since the approval of LEPTS, they should be modified by MEM/DEM in collaboration with other related ministries.

3) Dissemination and compliance with LEPTS

LEPTS should be observed by stakeholders such as EDL and IPP to prevent any accidents related to electricity in Lao PDR. Therefore, DEM as regulatory authority should take lead in dissemination of the contents and procedures of LEPTS to stakeholders. Also, as PDEM's responsibilities are considered to be exceeding their technical capabilities, it is recommended that DEM consider appropriate measures to secure and supplement PDEM's function.

5. Lessons Learned

1) Promotion of DEM

Promotion of DEM to department level shows a strong commitment of MEM for strengthening regulation. Authority's power and awareness toward law enforcement were also raised accordingly. It was a good lesson that demonstrates the effectiveness of strengthening regulatory institutions along with technical capacities.

2) Necessity for periodical verification of relevance of PDM

Some indicators for the Project purpose appeared to be inappropriate as there was no action corresponding to these indicators was planned in PDM (i.e. indicators concerning PDEM and EDL). Though both Japanese experts and Lao C/P recognized those inappropriate indicators during the Project, they did not correct such problems by the end of the Project as they had to deal with other urgent matters. This shows an important lesson that JICA needs to monitor the project progress based on PDM and examine its appropriateness throughout the project implementation, and modify on necessity basis.

3) Approach of technical cooperation

The most important issue of the Project was how to strengthen practical capabilities of C/P by utilizing regulations and references prepared in the previous cooperation. This was effectively attained owing to the approach adopted by the expert team that they set themselves back from actual examination and inspection works and let C/P do them by themselves. It enhanced sense of ownership of C/P for their works and self-confidence. On the other hand, number of expert was 16 and their total trips amounted to 87 times, which caused negative impacts on building relations between C/P and the expert team in order to carry out technical transfer effectively. As the Project was conducted on contract base, it was to certain extent inevitable to have many short-term experts with lots of trips however, it should be considered that JICA and the consultancy conclude a sort of memorandum of understanding to avoid such unfavorable working arrangement before get into contract.